EASY BRIDGE WEATHERING TIPS

Model Railroader®

December 2026



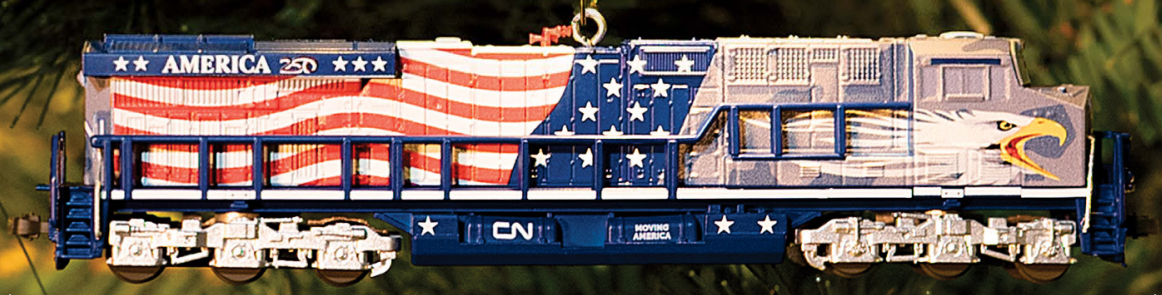
THIRD TIME'S THE CHARM

Experience has proved to be a good teacher

PLUS

- Modeling Donner Pass in 1941
- Build a boxcar from MR plans
- A quick and clean scenery method

Start a New Christmas Tradition



Perfectly proportioned – 5" long

ONLY **1776** OF EACH RAILROAD AVAILABLE

SCALE TRAINS | AMERICA 250

THE PERFECT HOLIDAY GIFT FOR RAILFANS

More than a century ago, setting up a train set around the tree became an annual holiday tradition. This year, we invite your family to start a new tradition – collecting ScaleTrains™ Christmas ornaments.

Our 2026 lineup features officially licensed America250® commemorative boxed locomotive sets for BNSF, Canadian National, CPKC, and Norfolk Southern. We're producing only 1776 sets for each railroad. Each box includes a serialized certificate of authenticity, and each locomotive features "2026" decoration on the bottom.

These limited edition sets are available exclusively for preorder at ScaleTrains.com, and payment is due when they arrive. Delivery is expected just in time for Christmas gift-giving this year. As the first offerings in our annual ornament series, we expect the sets to sell out before December, so be sure to pass this along to the gift-giver in your family today.

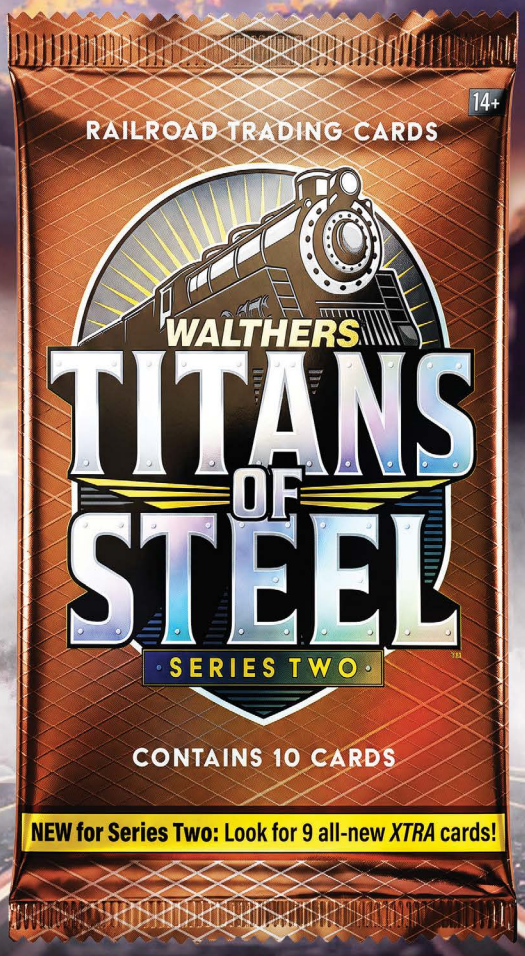
PREORDER NOW / PAY ON ARRIVAL

ScaleTrains.com™

844-9TRAINS 844-987-2467 · International 423-299-3689

©2026 USSC. The America250® word mark and logo are trademarks of the USSC. ©2026 ScaleTrains, ScaleTrains.com and respective logos are trademarks of ScaleTrains.com, Inc. Pricing is subject to change without notice.

THE TITANS HAVE RETURNED!



COLLECT MORE. CONNECT MORE. TRADE MORE.

The next chapter of Titans of Steel™ has arrived! Series Two brings 56 all-new cards celebrating even more fascinating machines, people, places and stories from the rich history of railroading. Discover new favorites, chase rarities, and trade with fellow enthusiasts to complete your collection. Plus, look for nine puzzle cards that combine to reveal a complete railroad scene, and new XTRA cards offering a deeper look at select subjects in the collection.

THERE'S MORE TO COLLECT! Build your complete Titans of Steel collection with all available series and special-edition sets. Watch for more to come!

TitansofSteel.com

WALTHERS®

Support your local hobby shop • visit walthers.com • call 1-800-4-TRAINS

©2026 Wm. K. Walthers, Inc.

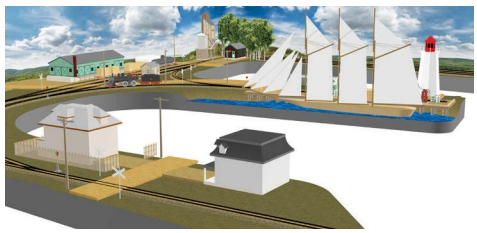
DECEMBER 2026
Volume 93, Number 12

Features



27 Build an HO scale ventilated boxcar
Prototype plans from the April 1962 issue of *Model Railroader* inspired this modeling project
by Jerry Lauchle

34 The Santa Fe in eastern Illinois
This HO scale layout depicts the months leading up to the 1995 merger that created Burlington Northern Santa Fe
by Tom Cain



42 Model Railroad Planning: Ask why, not how
Consider the purpose of the railroad you're modeling
by Rob Chant



48 Donner Pass 1941
Books and field trips inspired an Eastern modeler to depict the West
by Peter Darling

54 3 easy bridge weathering tips
Using readily available products to make realistically rusty structures
by David Popp

In every issue

6 On Trains.com
The latest features on our website

8 From the Editor
Where are the young modelers?



10 News & Reviews



18 Ask MR
More information on the periscopes, please

22 Railway Post Office
Letters from our readers



24 Step by Step
Scenery with shop rags

58 Prototype to Model
Union Pacific's Echo Canyon

61 Behind the Scenes
Saying goodbye to an old friend

62 Trackside Photos

73 Index of Advertisers and Cartoon

74 Trains of Thought
Cures for malaise



54
34
48
27
24

On the cover: A manifest freight passes through Ransom, Ill., on Tom Cain's HO scale Eastern Ill. Santa Fe.
Dan Munson photo

Go online and subscribe to receive *Model Railroader* issues packed with how-to tips and techniques for beginners to advanced modelers, news and product reviews, and inspiring layouts. www.trains.com/mrr/subnow

Model Railroader (ISSN 0026-7341, USPS 529-810) is published monthly by Firecrown Media Inc., 405 Cherry Street, Chattanooga, TN 37402. Periodicals postage paid at Chattanooga, TN and additional mailing offices. **POSTMASTER:** Send address changes to *Model Railroader*, PO Box 850, Lincolnshire, IL 60069.

Available for Pre-Order From

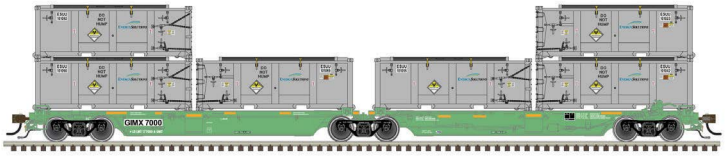
Atlas Master® HO Articulated Bulk Waste Carriers & Sets of Six Containers

ATLAS® MODEL RAILROAD CO., INC.

Limited Quantities Available! Act Now!



Environmental Protection & Improvement Co.-EPIX Bulk Carrier
with EPIU Waste Containers Officially licensed by EPIC®.



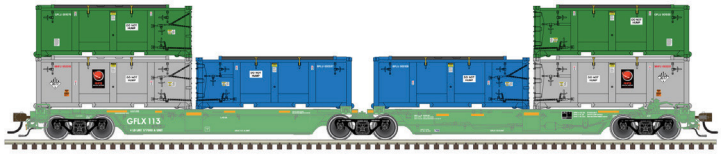
General American Marks - GIMX Bulk Carrier
with ESUU Waste Containers



Heritage Environmental Services-HESX Bulk Carrier
with HESU & ESDU Waste Containers



Heritage Environmental Services-HESX Bulk Carrier
with HESU & MJVU Waste Containers



Greenfield Logistics - GFLX Bulk Carrier
with GFLU, MHFU & BFLU Waste Containers



MHF Logistical Solutions Inc. - MHFX Bulk Carrier
with MHFU & ISEU Waste Containers



MHF Logistical Solutions Inc. - MHFX Bulk Carrier
with MHFU Waste Containers

SCAN THE QR CODE FOR MORE INFORMATION!

Additional Containers Available for Separate Sale.

Visit shop.atlasrr.com today for more information on track, locomotives, rolling stock, & more!

ATLAS® MODEL RAILROAD CO., INC.

ATLAS MODEL RAILROAD CO, INC. • 378 Florence Ave., Hillside, NJ 07205 • shop.atlasrr.com



Take a trip through Donner Pass

Peter Darling's HO scale Donner Pass 1941 layout is on page 48, and it's full of great photos, a track plan, and the whole story about how Peter became interested in this historic site.

But that's not all there is. Contributing Editor Lou Sassi also shot video when he and his team visited Peter's layout. Head over to Trains.com to see the model railroad in action!

Go behind the scenes to see how the sausage is made

Every month, Cody Grivno puts new products through their paces as he reviews them for the magazine and Trains.com. Now you can find out more about the process in the story "A closer look at *Model Railroader* product reviews" on Trains.com!



Have you protected the future of your collectibles?

Here's what collectors have said about **ModelTrainMarket.com**

"They did everything they said they would do. It was a pleasure."

"The offer was fair, instructions were clear, and the whole process came off without any problems."

"They made a fair offer which included paying the shipping costs."

2015 MODEL TRAIN MARKET

Start by calling, submitting our online form, or emailing us.

Better Offers, Less Hassle

(352) 261-3974 • M-F, 8am-2pm EST • sell@modeltrainmarket.com

IS YOUR DC POWER SUPPLY



LIMITING YOUR GROWTH?

RAILPOWER 1370

Whether you're looking for your first DC train controller, or a powerful step-up unit to handle steep grades and power guzzling accessories, MRC's Railpower 1370 (AA370) is your answer. Featuring advanced circuitry and an economical price, it has been one of our most popular first step-up units for expanding your layout.



Features include:

- 18 VA of continuous power to handle growing HO layouts, steep inclines and power consuming accessories
- 300 degree speed control throttle
- Direction control switch
- LED pilot light
- Master on-off switch
- Automatic circuit protector
- Fixed AC output for accessories

UL Listed (3 yr limited warranty)
For information on all MRC DC, AC and DCC Train Controls visit: www.modelrectifier.com

MRC™ MODEL RECTIFIER CORPORATION

360 Main Street, Suite 2, Matawan, NJ 07747 • Phone: 732-225-2100 • **www.modelrectifier.com**

FOUNDED BY ROY C. GELBER

■ Train Controls ■ Model Railroad Accessories ■ Plastic Model Kits ■ Scenery ■ Educational Kits

By Eric White

Where are the young modelers?

A perennial worry among model railroaders is the perceived lack of youth in the hobby. This has been a concern since at least the 1950s, but is it really a problem?

Events like the National Model Railroad Association Scenic City National Convention and National Train Show in Chattanooga show the hobby is able to attract younger modelers.

Two I met in Chattanooga are brothers, Jonah and Toby Kimbrell, who had each built N scale T-TRAK modules for the giant T-TRAK layout built for the National Train Show. The brothers are keen model railroaders and worked with their grandfather to get the modules ready for the layout at the train show.

A cache of *Model Railroader* magazines was the catalyst for their interest, said their mother, Beth Dodson. The boys decided to subscribe, and after reading through about 30 years worth of issues, they had questions. Primarily, they wanted to know how they could get their work into the magazine. I gave them the standard spiel, and assured Beth that age wasn't an issue, the quality of material was.



Jonah, left, and Toby Kimbrell share their contribution to the T-TRAK layout at the National Train Show in Chattanooga in August. Jonah's module depicts the Lookout Mountain walking path in Chattanooga, and Toby's shows the CSX main line by the Chattanooga River Walk where it crosses the Norfolk Southern. Eric White photo

As you can see from their modules, they've learned quickly. Both depict scenes that are important to them personally as they reflect experiences they've had with their grandfather.

While Jonah and Toby were the youngest modelers I spoke to in Chattanooga, they weren't the only youthful ones. Most were old enough to have jobs, such as former MR associate editor Bryson Sleppy at ScaleTrains and Connor Large from Tomix, but there were plenty of kids at the Kato booth building



mini-dioramas, as well as the line of youth at the Woodland Scenics booth creating mini scenes with a bit of help.

The answer to the age-old question of how do we get youth involved in the hobby is changing, but the youth are still finding a way to us.

Given some encouragement, and a chance to participate, they may even be here to stay!

Model Railroader

Model railroading is fun!

Founder	A.C. Kalmbach 1910-1981
Editor	Eric White
Senior Editor	Cody Grivno
Senior Production Editor	Rene Schweitzer
Associate Digital Editor	Mitch Horner
Consulting Editor	Tony Koester
Editor-at-Large	A. David Popp
Contributing Editors	Pelle Søeborg, Larry Puckett, Lou Sassi
Email	editor@modelrailroader.com
Address	18650 W. Corporate Dr., Suite 103 Brookfield WI 53045

Model Railroader Art Team

Creative Director	Lisa Schroeder

Contributing to Model Railroader

We welcome contributions from readers, including articles, photographs, and drawings. For more information on submitting material, email Editor Eric White at eric.white@firecrown.com. Model Railroader assumes no responsibility for the safe return of unsolicited material. We assume unsolicited material is intended for publication by Firecrown Media unless otherwise noted. We assume letters, questions, news releases, and club news items are contributed gratis.

Trains.com

Executive Producer	Kent Johnson
Senior Producer	Ben Lake
Assistant Editor	Jenny Freeland
Assistant Digital Editor	Lucas Iverson

Advertising Department

	Martha Stanczak
Email	martha.stanczak@firecrown.com
Phone	414-246-7081

Customer Service

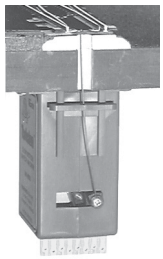
Email	HobbyCS@Firecrown.com
Phone	423-888-9825

Firecrown

Chief Executive Officer	Craig Fuller
Chief Revenue Officer	Jonathan Keller
Chief Operations Officer	Nicole McGuire
Chief Technology Officer	Nick Torres
Chief Financial Officer	Tripp Thurston
Executive Vice President, Media Sales	Preston Brown
Vice President, Finance/Controller	Amanda Joyce
Vice President, Creative	Barry Carpenter
Group President, Hobby Division	Nicole McGuire
Group President, Aviation Division	Ryan Ewing
Chief Operating Officer, Marine Division	Mark MacKenzie
Head of Media Operations & Client Success	Erin Kuyper
Vice President, General Counsel	Darren Caputo
Human Resources Director	Suzie Matoh

©2026, Firecrown Media Inc., all rights reserved. Title registered as trademark. This publication may not be reproduced in any form without permission.

Tortoise™



For 35+ Years, Simply...
The BEST!
Slow Motion Switch Machine

MADE IN THE USA

800-6000 $ 28.95
6006 6-PACK $168.00
6012 12-PACK 324.00

- **Enclosed Gear Drive Mechanism** (**NOT** a Screw-Drive Machine!)
- **Simple Mounting - All Linkage Included!**
- **2 Sets SPDT Auxiliary Contacts**

AT YOUR LOCAL HOBBY SHOP OR DIRECT
INCLUDE $10.00 FOR SHIPPING & HANDLING

Send SSAE for more info or $10.00 for complete ***60 page Catalog & Application Book*** *to:*

CIRCUITRON
211 RocBaar Dr., Romeoville, IL 60446-1163

YankeeDabbler.com

Thank you for making YankeeDabbler your favorite hobby store!
Check out our complete train store!
Repairs and decoders installed.
N, HO, S, O, G

Authorized Dealer:
Digitrax, ESU-LokSound, NCE, Soundtraxx, TCS



YANKEEDABBLER.COM

OPEN
Tue-Sat
Web(24x7)

(856) 312-8084
101 W. Kings Hwy., Bellmawr, NJ 08031
www.yankeedabbler.com

N-Scale
NOVEMBER/DECEMBER 2026



N-Scale Magazine is a bi-monthly publication devoted exclusively to N scale, featuring Layouts, Dioramas, Nn3, DCC, Electronics, Painting & Weathering, 3D Printing, Scratch-building, Reviews, New Products and more. Both Print & Digital Subscriptions Available.

www.nscalemagazine.com

35 Years of N-Scale Magazine on CD
Volume 1-7 (1989-2024)

PLATINUM RAIL PUBLICATIONS

5811 75th Avenue NE Marysville, WA 98270
360-658-2485

For *Model Railroader* advertising information please call Martha Stanczak 414-246-7081



TRAINZ



60,000+
MODEL TRAINS
New and pre-owned locomotives and rolling stock in every scale.



30,000+
TRAIN PARTS
Interactive exploded view diagrams help you find what you need!



MORE THAN
TRAINS
Find rare diecast, toys, collectibles, and more on our site.



WE BUY
COLLECTIONS
Over 25 years of saving you time and effort. Selling made easy!

Trainz.com
4195 Industry Way
Flowery Branch, GA 30542
1-866-285-5840

Sellmytrains.com
Get your time back. We'll take it from here!
sellyourtrains@trainz.com
1-866-285-5840

HO scale



HO scale Electro-Motive Division FTA and FTB diesel locomotives. Milwaukee Road; Atchison, Topeka & Santa Fe (freight and passenger schemes, A-B sets and single B units); Boston & Maine; Chicago, Burlington & Quincy; Delaware, Lackawanna & Western; Great Northern; New York, Ontario & Western; Northern Pacific; and Reading Co. are the paint schemes on these models from Rapido Trains. Among the features on the HO scale cab units, provided to *Model Railroader* free of charge by Rapido Trains, are prototype-specific details, etched-metal side and fan screens, factory-installed grab irons and handrails, drawbar or coupler connections between A and B units, and a multi-color interior. Direct-current models are priced at $209.95 (B unit) and $439.95 (A-B set). Models with an ESU LokSound V5 sound decoder list for $319.95 (B unit) and $659.95 (A-B set). Rapido Trains Inc., 905-474-3314, rapidotrains.com

Tony Koester receives service award at St. Louis RPM

***Model Railroader* Consulting Editor Tony Koester** received the inaugural St. Louis RPM Modeling Community Outstanding Service Award in late July. The award was presented during the St. Louis Railroad Prototype Modelers (RPM) meet held in Collinsville, Ill.

Lonnie Bathurst, president of the St. Louis Railroad Prototype Modelers meet, came up with the concept for the award. He shared his idea with John Golden, founder of the St. Louis RPM, and Jeff Kuebler, general manager of the event. Bathurst's goal was to thank those who have both shared their skills and helped promote model railroading. From these initial meetings a criteria list was developed. The initial plan was to recognize someone involved directly with the St. Louis RPM, but it was decided to consider modelers from across the country.

"Despite a long list of current and future nominees, it soon became obvious that the absolute best choice for the first recipient was Tony Koester," a press release sent out by the organization stated. "The average model railroad enthusiast is well aware of Tony and much of what he has accomplished in his career and the many things he has done to advance the hobby in general. Tony is world renowned for his contributions to the hobby press, hobby organizations, and to the RPM enthusiast as well."

The St. Louis RPM committee plans to add a few more members to its volunteer nominating group, with a goal of presenting the award to three to five modelers per year.

For additional information on the St. Louis RPM Modeling Community Outstanding Service Award, contact Lonnie Bathurst through the St. Louis RPM website, stlrpm.com.



Model Railroader magazine Consulting Editor Tony Koester received the inaugural St. Louis RPM Modeling Community Outstanding Service award in late July. Shown with Tony are Jeff Kuebler (left) and Lonnie Bathurst (right). Michelle Kempema photo

HO scale locomotives



- **Electro-Motive Division GP7 and GP9 diesel locomotives.** GP7u: Atchison, Topeka & Santa Fe (yellowbonnet and "Kodachrome" schemes); BNSF Ry. (yellowbonnet [including Primed for Grime] and Heritage I schemes); and Morristown & Erie. GP7R: Chicago & North Western. GP9R: C&NW. One to four numbers per scheme. Prototype-specific details, full cab interior, and light-emitting-diode lighting. Direct-current model with 21-pin NEM connector, $229.99; with SoundTraxx Tsunami2 sound decoder, $329.99. Add $10 to Primed for Grime models. Athearn Trains, 800-338-4639, athearn.com



- **General Electric U30C diesel locomotive.** New paint schemes: Chesapeake & Ohio, Conrail (Reading Co. patchout), CSX, Delaware & Hudson, National Railways of Mexico, Penn Central, and Seaboard Coast Line. Two to three road numbers per paint scheme. Prototype-specific details, etched-metal grills, and metal couplers. Direct-current model

with factory-installed speaker, $199.95; with ESU LokSound V5 sound decoder and passive radiator speakers, $319.95. Master Line. Atlas Model Railroad Co., 908-687-0880, shop.atlasrr.com

HO scale freight cars



- **Great Northern 40-foot double-sheathed boxcar.** Great Northern (Vermillion Red with *Empire Builder* lettering, 1956+; Mineral Red with front facing goat, 1940+; Mineral Red with side facing goat, 1941+; and Mineral Red with Great Northern Ry. herald, 1948+). Textured wood-paneled body, detailed underframe with brake piping, separate running boards and grab irons, semi-scale metal couplers, and 50-ton Association of American Railroads trucks with metal wheels. Minimum suggested radius, 18". Exclusive paint schemes and road numbers to be offered by Great Northern Railway Historical Society (gnrhs.org). Single car, $59.95; six-pack, $359.70. Rapido Trains Inc., 905-474-3314, rapidotrains.com



- **Trenton Works 5,277-cubic-foot capacity plug-door boxcar.** Canadian National (As delivered, faded, faded with conspicuity stripes, and URL with conspicuity stripes; all schemes offered as a single car and six-pack), Atlantic & Western Ry. (single car and three-pack), Ontario Northland (single car and three-pack), and Tomahawk Ry. (single car and three-pack). Also available painted brown but unlettered (single car only). Detailed underbody; separate door posts and door latches; and optional, modeler-installed vents for pulp-carrying cars. Single car, $54.95; three-pack, $164.85; six-pack, $329.70. Rapido Trains Inc., 905-474-3314, rapidotrains.com

HO scale passenger equipment



- **12-section, 1-drawing-room heavyweight sleeper.** Great Northern (University of Minnesota Heart Research), Alaska RR, Illinois Central, Louisville & Nashville, National Railways of Mexico, Pennsylvania RR, Pullman, Southern Ry., and Union Pacific. One to three car names per scheme. Detailed interior; sprung diaphragms; prototype-specific air conditioning details; freestanding underbody parts, including brake piping, steam traps, and brake rigging; detailed trucks; and metal couplers. Recommended minimum radius, 24". $109.95 (painted Pullman Green but unlettered, $89.95). Master Line. Atlas Model Railroad Co., 908-687-0880, shop.atlasrr.com



- **Hawker-Siddeley Tempo cars.** Single cars: CN Rail (coach), Algoma Central (club, coach, cafe-bar-lounge, and snack coach), Denver & Rio Grande Western *Ski Train* (coach, snack coach, and club), National Railways of Mexico (RT-85 coach, three paint schemes), Quebec Iron & Titanium (coach), and VIA Rail (coach and snack coach). Three-car sets: CN Rail (club, cafe-bar-lounge, and coach), Denver & Rio Grande Western *Ski Train* (coach, snack coach, and club car), and VIA Rail (club, cafe-bar-lounge, and coach). Full, multi-color interior with individually installed seats; detailed underbody with separate piping and conduit; track-powered interior lighting and working marker lights; etched-metal end gates; metal couplers; and MoPower capacitor. Suggested minimum radius, 22". Single car, $129.95; three-pack, $374.95. Rapido Trains Inc., 905-474-3314, rapidotrains.com

N scale



Union Pacific late steam excursion water tender set. ScaleTrains offers these models in its Rivet Counter line. The N scale UP steam excursion water tender set, supplied to *Model Railroader* free of charge by ScaleTrains, includes the *Joe Jordan* (UPP No. 814, 2006 to present) and *Jim Adams* (UPP No. 809, 2008 to present). The models, which can be used on DC and DCC layouts, feature light-emitting-diode headlights; a two function DCC programmable decoder; factory-applied ladders, handrails, uncoupling levers, and m.u. hoses; and body-mounted couplers. The UP water tender set is priced at $109.99. ScaleTrains, 844-987-2467, scaletrains.com



- **50-foot Pullman-Standard troop sleeper.** Detroit & Toledo Shore Line, Chesapeake & Ohio, Denver & Rio Grande Western, Erie Lackawanna, Pullman (U.S. Army), and Western Maryland. Two to six road numbers per paint scheme; also available painted green but unlettered. Detailed interior, Allied full-cushion trucks, sprung diaphragms, factory-installed wire grab irons, metal wheelsets, and Proto-Max metal couplers. Minimum radius, 18". Unlighted cars, $64.98; lighted cars, $79.98. WalthersProto. Wm. K. Walthers Inc., 414-527-0770, walthers.com

HO scale details and accessories



- **53-foot intermodal containers.** High-cube smooth-side containers: Alaska Marine; APC; Atchison, Topeka & Santa Fe; Canadian National (We Deliver and tri-modal schemes); Conrail Mercury; Canadian Pacific (gray and red-and-gray schemes); Econoline; FastFrate; J.B. Hunt (early); Oceanex; Railroad of Lies (CN tri-modal patchout); and NFI RoadRail. Outside-braced containers: Canadian Pacific, Ferromex (red and red, gray, and white schemes), and STG Logistics. Reinforced outside-braced containers: Amazon, EMP, J.B. Hunt Intermodal, and Umax. Injection-molded plastic with separate door rods, side panels with a thin top rail, and multiple nose panel designs

(horizontal corrugations and vertical ribs). Two-pack, $32.95. Rapido Trains Inc., 905-474-3314, rapidotrains.com

N scale locomotives



- **General Electric ES44AC diesel locomotive.** Canadian National ("Screaming Eagle" and Air Force One schemes). Five-pole motor with dual brass flywheels, directional headlights and ditch lights, and Kato magnetic knuckle couplers. Artwork shown is not finalized. Direct-current model, $160; with Digital Command Control, $260; and with DCC and sound, $360. Kato USA Inc., 847-781-9500, katousa.com



- **General Electric ES44-series diesel locomotives.** ES44C4: Florida East Coast (Freedom 250 scheme). ES44AC: Norfolk Southern (Landmark Series, *Altoona* and *Chicago*). Prototype-specific details, light-emitting-diode lighting, and body-mounted couples. Direct-current model with Nano24 connector, $149.99; with dual-mode ESU LokSound V5 decoder and cube-type speaker, $254.99. ScaleTrains, 844-987-2467, scaletrains.com

Club offerings



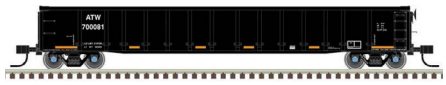
- **Kankakee Tile & Brick Co. 41-foot steel gondola.** Accurail HO scale injection-molded plastic kit custom decorated for the Kankakee Model Railroad Club. Two road numbers. Kit, $30; assembled with Kadee metal couplers, $35. Shipping $10 per car. Payment via check or money order payable to KMRC. No credit card orders. Kankakee Model Railroad Club, 197 S. East Ave., Kankakee, IL 60901.

HO scale



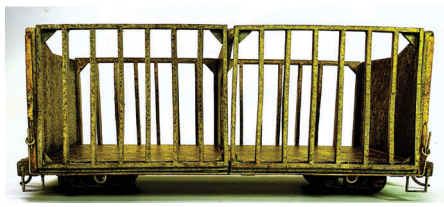
HO scale railroad instruction and exhibit cars. Great Northern Fire Prevention Instruction Car X1828 was given to *Model Railroader* free of charge by Broadway Limited Imports. Additional paint schemes on the HO scale instruction cars include Chesapeake & Ohio, Chessie's Safety Center, Denver & Rio Grande Western, New York Central, Norfolk & Western, and Western Maryland. Exhibit cars are decorated for Atchison, Topeka & Santa Fe; Norfolk Southern; and Southern Ry. The model, based on modified coach tooling developed for BLI's 1947 American Freedom Train, has an ABS body and underbody, sprung diaphragms, and factory-applied details. The railroad instruction and exhibit cars are priced at $89.99 each. Broadway Limited Imports, 386-673-8900, broadway-limited.com

N scale freight cars



- **Thrall 2,743-cubic-foot capacity gondola.** New paint schemes: Atlantic & Western, David J. Joseph Co. (with cover), The CIT Group (with cover), GE Rail Services, David J. Joseph Co. (with cover), Northwestern Oklahoma RR, Reading & Northern, and Union Pacific. Limited Edition Collectors' Series Model: David J. Joseph Co. (with factory-applied graffiti and cover). Injection-molded plastic construction with 14 exterior posts; separate, factory-applied ladders; and detailed stirrup steps. Without cover, $29.95; with cover, $34.95; Collectors' Series Model, $44.95. Master Line. Atlas Model Railroad Co., 908-687-0880, shop.atlasrr.com

O scale freight cars



- **Sugar cane car.** Kit includes resin frame, side panels, and ends; center support; stirrup steps; wire grab irons; brake wheel; wire; styrene; and instructions. Trucks, couplers, and brake parts not included. Measures 6⅛" long (without couplers) x 2" wide x 2⅛" tall (without trucks). Designed by Thomas Yorke. $59.95. Frenchman River Model Works, 701-256-2129, frenchmanriver.com

Trainfest
America's Largest Operating Model Railroad Show

Meet the Trains.com team at Trainfest

Trainfest, America's largest operating model railroad show, returns to the Baird Center in downtown Milwaukee on Nov. 7 and 8, 2026. This year's show promises to be bigger than ever with more than 250 vendor booths, 500 tables, and over 50 operating train layouts and displays.

Staff members from *Model Railroader*, *Trains*, and *Classic Toy Trains* will be at the Firecrown Media booth to meet visitors and answer questions. They'll also be doing live manufacturer interviews and layout visits, which will be streamed on Facebook, Trains.com Video, and YouTube. If you can't watch live, the videos will be archived on Trains.com Video.

As in previous years, most major model railroad manufacturers also plan to attend. Trainfest is a great opportunity to talk with representatives from the hobby's leading companies, ask questions, attend how-to clinics, and make suggestions for future products.

The two-day event is produced by the National Model Railroad Association. To purchase tickets, see the clinic schedule, and get hotel and parking information, visit trainfest.com.

Walthers HO scale Spartan cab EMD SD70



A Spartan cab Electro-Motive Division SD70 is the newest addition to the SD70 and SD75 range of HO scale diesels from Walthers. The Mainline-series model features plastic and die-cast metal construction, molded and factory-applied details, and Proto-Max metal couplers.

Electro-Motive Division began producing the Spartan cab SD70 in April 1993. The six-axle road unit, rated at 4,000 horsepower, was equipped with a 16-cylinder, 710G3B diesel engine; an AR20 alternator; and D90TR traction motors. Production ended in 1999, with 120 units built for the domestic market.

The sample *Model Railroader* received free of charge from Wm. K. Walthers Inc. is decorated as Conrail 2557, the class engine of the 2557 through 2580 series built at Conrail's Juniata Locomotive Shops in Altoona, Pa. The road units, produced between July and October 1998, were constructed from kits provided by EMD.

Though painted for Conrail, the number series follows those owned by Norfolk Southern (2501 through 2556). That's because NS and CSX were in the process of acquiring Conrail. The operational division took place in July 1999.

The WalthersMainline model has a multi-piece plastic shell consisting of the short and long hoods, cab, and sill unit. The bump-out on the engineer's side of the short hood is where the integrated cab electronics equipment is located on the full-size units. Directly below the bump-out is a coupler knuckle basket.

A plastic air conditioner is mounted on the cab roof. Drill-starter points are located at various locations on the short and long hoods. Most of the details on the long hood are molded, including the inertial filter hatch, exhaust, hood doors, and radiator cooling fans. The air horn and brake wheel are freestanding parts.

The model we received is neatly painted Conrail Blue with white graphics. The steps, pilots, walkways, cab roof, and top of the short hood are black, and the step edges are white.

Lettering placement follows prototype images. The font for the road number on the cab sides and number boards is slightly different from what was used on the prototypes.

Since this is a Mainline-series model, the graphics and details are simplified. Warning stencils found on various doors on the full-size Conrail SD70s were omitted on the model. Details like the antenna and ground plane on the cab roof, the firecracker antenna near the horn, and rear ditch lights were also left off. The horn should be a Nathan K5LA-R24.

Trains.com members can see the latest product review videos with this QR code.

Prototype drawings of the Conrail SD70 were published in the January/February 1999 issue of *Diesel Era* magazine. The WalthersMainline model matches or is within scale inches of published dimensions.

I did initial product testing at the workbench using an NCE Power Cab. At step 1 the locomotive crawled along at 1 scale mph. At step 28 the model achieved a top speed of 69 smph. The full-size diesel had a maximum speed of 70 mph.

Then I put the SD70 on the Milwaukee, Racine & Troy East Troy Industrial Park for further testing. The 14 x 19-foot layout has a minimum radius of 28" (main) and 18" (spurs) and No. 5 turnouts on the main. The model performed without issue running light and when leading a train.

In addition to the Spartan cab EMD SD70, this run includes SD70M and SD75I diesels. If you want to take the models to the next level, open up those drill-starter points and install formed-wire grab irons from the manufacturer's diesel detail set (No. 910-261). From the box or dressed up, the Walthers SD70 and SD75 diesels are worth checking out.
— *Cody Grivno, senior editor*

Facts & features

Price: Direct-current model with 28mm speaker and 21-pin DCC plug, $179.98; with ESU Sound & DCC, $239.98

Manufacturer
Wm. K. Walthers Inc.
5601 W. Florist Ave.
Milwaukee, WI 53218
walthers.com

Era: April 1993 to present (varies based on paint scheme)

Road names: Conrail, Illinois Central, and Norfolk Southern. Four road numbers per paint scheme.

Features
- Body-mounted Proto-Max metal couplers, at correct height
- Metal wheel stubs on plastic drive-axle gears, correctly gauged
- Weight: 1 pound, 7.2 ounces

Rapido HO scale drop-bottom gondola



A Pressed Steel Car Co. drop-bottom gondola has been added to the Rapido Trains HO scale freight car lineup. The newly-tooled model, based on original CAD files designed by the Northern Pacific Railway Historical Association (NPRHA), features plastic and die-cast metal construction, 33" metal wheelsets, and semi-scale metal couplers.

The Rapido Trains model follows the lines of Northern Pacific's 50000 through 50499 series of drop-bottom gondolas built by Pressed Steel Car Co. Inc. in Pittsburgh, Pa., in 1940. The 500 cars were assigned to general service, hauling coal, ore, pulpwood, scrap metal, and sugar beets, among other commodities. From 1966 to 1968, some — but not all — of the cars from this series were reconditioned. As part of that process, the rehabbed gondolas were reassigned to the 58250 through 58749 series.

Examples of these cars lasted into the Burlington Northern era. A few of the gons wound up in maintenance-of-way service, with some repainted and given BN reporting marks and road numbers.

Our review sample, supplied to *Model Railroader* free of charge by Rapido Trains, is lettered as NP 50214. The model is decorated in its 1940 as-delivered paint scheme. The lone survivor from this series, NP 50409, is on display at the Northern Pacific Ry. Museum in Toppenish, Wash.

Model construction consists of plastic sides and ends and a die-cast metal floor. The grab irons and uncoupling levers are formed-wire parts. Plastic was used for the stirrup steps, end ladders, and train line hoses.

Additional details on the B end of the gondola include a freestanding brake wheel, hand brake, retaining valve, and brake platform. Our sample has a Universal brake wheel. A plastic bag included with the model contains Ajax and early (pre-1936) Miner D-3279 brake wheels, both mounted in a hand brake.

The car floor is a one-piece metal casting. The Dreadnaught pattern on the non-functioning drop doors is raised on the top and recessed on the bottom. The cover plates for the center sills and crossmembers, both with rivet detail, are depicted on the top. Hinges and additional details are on the bottom.

Of course, this wouldn't be a Rapido model without a highly detailed underbody. The center sills, crossmembers, body bolsters, and draft-gear boxes are plastic. The draft-gear box covers are also plastic, secured with a screw.

The car's design makes the brake system easy to see. Plastic parts include the air reservoir, brake cylinder, brake rods, control valve, dirt collector, cut-off valve, and levers. Formed wire was used for the auxiliary, brake, branch, and emergency pipes and lever support brackets.

The sample we received for review has a smooth, even coat of black paint. Lettering placement matches prototype images that I found in books and online. The COTS data printed on the air reservoir is a nice touch.

Dean O'Neill, chair of the NPRHA Modeling Committee, shared prototype drawings of the 50000 through 50499 series gondolas with me. The exterior dimensions match published data. The interior width and length are a bit narrower than the full-size car, which is typical on models of open-top cars.

I took the gondola over to the Winston-Salem Southbound to test it on an operating layout. The model railroad has a mix of commercial and handlaid track and turnouts, a No. 4 turnout, and a 30-degree crossing. The gondola ran perfectly when being pushed and pulled in a train around the layout.

I'm a fan of the Hill Roads (NP; Great Northern; Chicago, Burlington & Quincy; and Spokane, Portland & Seattle), so I was thrilled when Rapido announced these cars. Additional road numbers for the NP cars, as well as an exclusive NP wood-chip gondola, can be ordered through the NPRHA Company Store website (store.nprha.org). — *Cody Grivno, senior editor*

Facts & features

Price: Single car, $54.95; three-pack, $164.85; and six-pack, $389.70

Manufacturer
Rapido Trains
382 High St.
Buffalo, NY 14204
rapidotrains.com

Era: 1940 to 1980s (varies based on paint scheme)

Road names: Northern Pacific (1940, 1966, and pulpwood versions); Burlington Northern (maintenance-of-way, single car and three-pack); Chicago & North Western; Denver & Rio Grade Western; Illinois Central; New York, New Haven & Hartford; Soo Line; and Union Pacific. Available as single car and in six-packs unless noted.

Features
- 33" metal wheels, in gauge
- Body-mounted semi-scale metal couplers, at correct height
- Recommended minimum radius, 18"
- Weight: 3.9 ounces, correct per National Model Railroad Association Recommended Practice 20.1


Do You Hear What I Hear?
NEW from Woodland Scenics
Sound System™
Just Plug®
Hear the sounds
woodlandscenics.com • Purchase from your preferred hobby store

QUICKLOOK

Brennan's Model Railroading Natural Sand

Price: 24-ounce bag, $9.95
Manufacturer
Brennan's Model Railroading
P.O. Box 520174
Independence, MO 64052
brennansmodelrr.com
Varieties: Kaw Valley, Rock Creek, and Superior (fine blend, coarse blend, and pebbles)

Comments: Longtime readers of *Classic Toy Trains* will recognize the name Dennis Brennan. His articles and photography have been appearing in our sister magazine since 1988. Dennis also operates Brennan's Model Railroading, which offers ballast and ground cover, books and videos, structures, and modeling supplies. When CTT Editor Rene Schweitzer received a box with samples from the company's Natural Sand product range, I was naturally interested.

The samples *Classic Toy Trains* and *Model Railroader* received free of charge from Brennan's Model Railroading include Kaw Valley, Rock Creek, and Superior (fine and coarse blends). Of the four products Kaw Valley, shown at right, is the finest and lightest in color. Rock Creek is comparable to Highball Products No. 520 Real Gravel.

Per paperwork included with the samples, Superior sand is a variegated material from the shores of Lake Superior. Fine is approximately the size of HO scale ballast. Coarse would be better suited for S and O scales.

For this product review I decided to give the Kaw Valley sand a try. I had some partially finished cast-plaster loads leftover from a project I wrote for *25 Freight Car Projects* (Kalmbach Books, 2015). The two-piece castings were designed for Great Northern ore cars that had been reassigned to gravel service. Though I'd painted the castings with Rust-Oleum Camouflage Khaki years ago, I never got around to adding loads to all of them.



First, I applied a 50:50 mix of white glue and water to the load. With the glue still wet, I used a spoon to sprinkle on the sand. I worked over a box lid to catch any excess. Once the load was covered, I applied 70% isopropyl alcohol and set the load aside to dry. The finished product turned out great.

I've long been a fan of using real materials for scenery. The Natural Sand line from Brennan's Model Railroading has some interesting options that can be used in a variety of modeling scales.
— *Cody Grivno, senior editor*

Call TODAY to order! 1-800-466-3131
Storage Boxes
Foam Lined
Self Closing
Fully Assembled
HO Scale
Holds 20 Cars - $31.95
N Scale
Holds 36 Cars - $31.95
Tote Bags
$36.95
Plus S&H
AXIAN TECHNOLOGY
623-580-0800
Patented U.S.A.
18000 N. Black Canyon Hwy. • Phoenix, AZ 85053
www.axiantech.com

T SHAPES & Z CHANNELS
▪ Available in a variety of popular sizes
▪ Packaged in Small Packs, Economy Packs and Bulk
▪ White Polystyrene
Evergreen scale models
visit us at www.evergreenscalemodels.com
Toll Free (877) 376-9099
/EvergreenScaleModels

BENCHWORK in a HURRY
Use Our Simple Modular System
You Design Any Size Layout
For Any Gauge Track
Easy to Assemble
Sievers BENCHWORK
Washington Island, WI 54246
920-847-2264
www.sieversbenchwork.com

DIGITRAX®
Complete Train Control
Zephyr Express
• 3.0 Amp LocoNet® Command Station, Booster, and Throttle
• Color 2.4" TFT QVGA Display Screen
• Large Backlit Keypad
digitrax.com
facebook.com/digitraxdcc
The Fast Track to Digitrax Complete Train Control

MENARDS.COM/TRAINS

Gas & Oil FROM GROUND TO GAS PUMP

Animated Beam Arm Moves Up and Down!



NEW

Sinclair® Beam Pump*

Oil has fueled American industry since James Buchanan was president! Oil is used everywhere—in lamps, petroleum for cars, fuel for ships and trains, lubricants for machinery, and it's the source material for countless products, from plastics to man-made fabrics. Rest assured that companies like Sinclair® have been right there securing the energy we needed through war and peace!

HO Scale Dimensions: 4-5/8"W x 3"D x 4-1/4"H (full extension)
HO Scale (275-9707) | O Scale (275-9706)



NEW

Sinclair® Spherical Storage Tank

Modern spherical storage tanks that you see today, with welded steel panels (as opposed to riveted panels), date back to the 1940s. These tanks, also called Horton spheres, hold liquefied gasses such as LP gas, propane, and butane (among others). The spherical shape was found to be ideal for holding liquefied gasses for multiple reasons, including its resistance to heat transfer, as well as its resistance to thermal expansion and boil-off of the contents inside.

Let's face it, most train towns are pretty boxy with their rectangular buildings and rectangular streets. Step out of the box with these spherical storage tanks and add some interest and excitement to your layout!

HO Scale Dimensions: 4-9/16"W x 4-5/8"D x 4"H
HO Scale (275-9657) | O Scale (275-9656)



NEW

Sinclair® Horizontal Storage Tank

No industrial scene is complete without the massive storage tanks that helped keep America's factories, railroads, and businesses running! Beginning in the late 1800s and becoming increasingly common throughout the 20th century, horizontal storage tanks were built to safely hold large quantities of essential liquids. Depending on where they were used, these hardworking tanks could contain fuel oil, diesel fuel, gasoline, lubricating oil, water, chemicals, fertilizer, asphalt products, and other industrial liquids.

HO Scale Dimensions: 5"W x 3-1/4"D x 2-5/8"H
HO Scale (275-9682) | O Scale (275-9681)



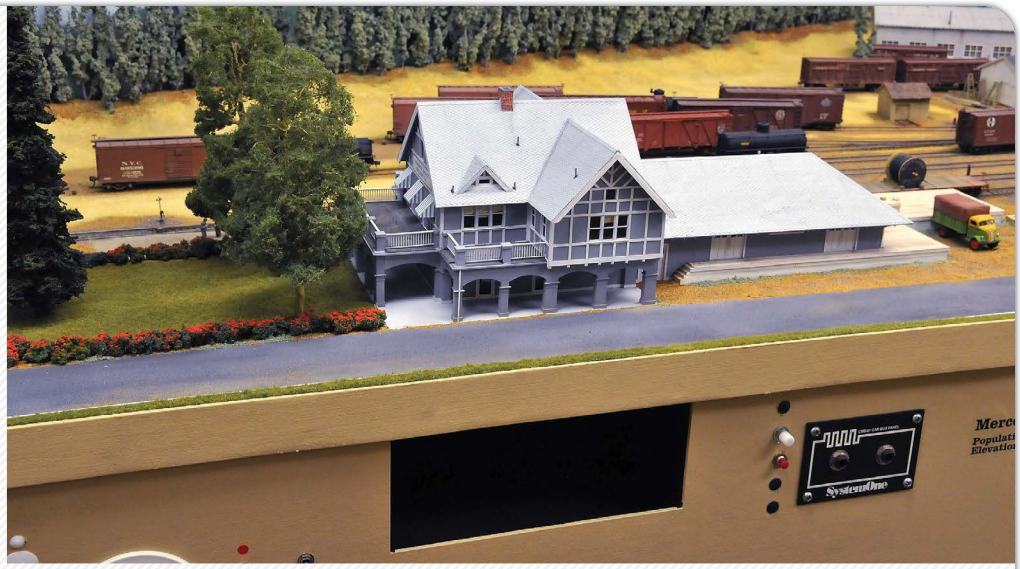
For more information and to order, visit MENARDS.COM/TRAINS

By Cody Grivno

More information on the periscopes, please

Q I enjoyed the September 2026 issue of *Model Railroader* very much, particularly the article about the Yosemite Valley RR. On page 42, Mr. Burgess mentions the use of periscopes so that visitors can see inside a building. Do you have more information on using periscopes on model railroads?

Andy Kersten







The scratchbuilt depot at Merced, Calif., on Jack Burgess' HO scale Yosemite Valley RR (top) has periscopes that let visitors and operators look into the first-floor lobby (left) and dispatcher's office (right). Jack Burgess photos

A To answer your question I turned to "An inside perspective" by Paul J. Dolkos in *Model Railroad Planning 2012*. Jack Burgess wrote the sidebar "Looking in — and out again" about the periscopes on his Yosemite Valley. Here's what he said about this feature on his HO scale layout:

In the late 1970s, I began planning the construction of a two-story depot located in Merced, Calif., on my HO scale Yosemite Valley RR layout. One of my goals was to make the interior details of the building readily visible without the need for a removable roof. My solution was a pair of periscopes.

Each periscope consisted of a styrene box fitted with two regular mirrors. One of the periscopes looked into the lobby on the first floor; the other provided a view into the second-floor drafting room.

At that time, I didn't have the information needed to build the adjacent freight house. In fact, I drew plans for the depot by estimating dimensions from a few photos. Many years later, I was given a copy of a tracing of the original YV drawing of the station and freight house. I used it and other dimensions I had obtained to develop much more accurate computer-aided design (CAD) drawings for both buildings.

Several years ago, I built the adjacent freight house. But when I compared my newer CAD drawings to my already-constructed depot, I discovered, to my frustration, that my Merced depot was oversized by around 20%!

Knowing this, I just couldn't intentionally build the freight house oversize. After much anguish, I realized that I needed to start over, so I built a new depot plus the freight house, both to scale. Given the visitor response to the periscopes incorporated into my first version of the building, there was no question that I needed to include them in my new station.

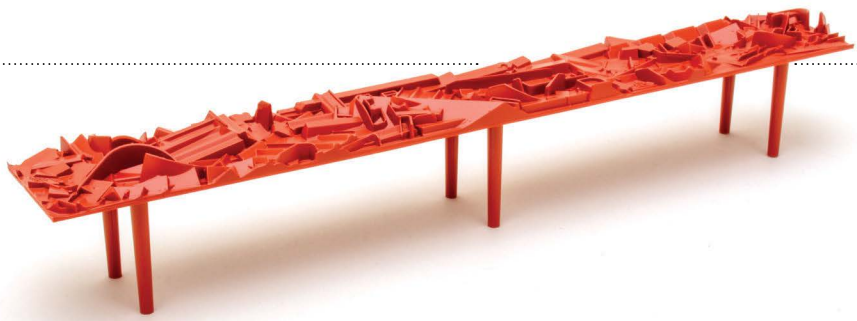
The mirrors I used in the first version of the station resulted in "ghost" images when looking through the periscopes due to the reflection from the thickness of the glass over the mirrored surface. For my replacement building, I used front-surface mirrors, which solved the problems with ghost images.

Both periscopes in the new station provide views into the first floor, one looking again into the lobby and the second one looking into the adjacent dispatcher's office. The periscopes allow visitors to have an unobstructed view into the first floor of the station, and they let them watch trains pass by the depot through the trackside windows. This gives the visitors a whole new perspective when viewing my layout.

Send questions on model, prototype, and toy trains to AskTrains@Trains.com.

Q Thanks for your review of the Athearn NSC 6000 gondola in the August 2026 issue. I recently purchased a car and it is impressive. However, I was disappointed with the scrap load. Being painted all one color makes it seem a bit cheap. Considering the Genesis model level and the cost of the car, it seems Athearn could have done a better job with the load. Is there a third party that offers a more realistic load for the NSC 6000?

Mike Clemente



Here's the injection-molded plastic load included with the Athearn Genesis HO scale National Steel Car 6,000-cubic-foot capacity gondola. *Model Railroader* received the freight car this load came from, reviewed in the August 2026 issue, free of charge from Athearn Trains. Cody Grivno photo

A Mike, I'm not aware of any third-party scrap loads that are designed to fit in the Athearn Genesis HO scale National Steel Car (NSC) 6,000-cubic-foot capacity gondola. However, I have some ideas on how you can turn the monochromatic load into a real eye-catcher with some easy-to-use weathering techniques.

Though the load is painted a uniform color, it has a lot of crisply defined details. To add some visual interest to the load, get out some paintbrushes and/or paint markers. There's a riveted plate that would look good painted grimy black with some rust on it. In addition, there are some pieces of perforated metal that look similar to freight car crossover platforms or running boards. Brush those a worn galvanized metal color or perhaps a faded freight car color.

Once you have all of the desired parts painted, spray the load with Testor's Dullcote or a similar clear flat. Then apply some Monroe Models Quick Age wash. The alcohol-based wash will settle into the recesses of the load and help tone down the fresh paint. The alcohol may react with the Dullcote, creating a hazy effect, further enhancing the load.

Hand-painting individual details on the plastic load is fine for a car or two, but may become a slow and tedious process if you have a larger fleet. Another option is to spray the load with Dullcote. After it has dried, apply Weathering Washes from Monroe Models. The washes consist of powdered pastels suspended in isopropyl alcohol. You can either brush the washes on individual parts or randomly apply them over the load for a variegated finish. Colors I would recommend include Real Rust (973), Rusty Brown (975), Dark Rust (979), and Quick Age (978).

Regardless the path you take, these techniques will help give the factory-painted plastic load a bit more realism. I hope you give one or both of them a try.



Q I'm getting up in years and the combination of Bachmann's offering of the Western Maryland (WM) I-1 Russian Decapod and your 2024 Freemont Mills layout has me considering an HO scale project that would be easier on my eyes and digits. The photo on the cover of the January 2024 MR, if looked at in reverse mirror view, is similar to the WM Frostburg, Md., station area that still exists on the Western Maryland Scenic RR. I'm developing a 1950s switching layout based on this location, including the famous Frostburg tunnel. Due to selective compression, many backing movements would have the Russian Decapod operating from inside the tunnel. Would this be realistic? Did hand signals or other methods exist to instruct the engineer when to move and at what speed while the locomotive was in a tunnel?

Jimmy Werling

A I turned to former On Operation columnist Jerry Dziedzic for help with this interesting question. He replied:

Even long before today's occupation and safety health regulations, stopping an engine in confined space puts its crew at risk. Here's an example from the 12th edition of the Northeast Operating Rules Advisory Committee Operating Rules. Though written for diesels, consider how much more dangerous a Decapod could make conditions.

"114. Diesels: Confined Locations and Tunnels. If diesel-propelled trains are stopped while operating in tunnels or confined locations, all diesel engines must be shut down after standing 5 minutes. The engine may not be started until a signal to proceed is given."

There's another complication. Looking back from the engine has an engineer or fireman staring into the literal light at the end of the tunnel. I'd not want to rely on a hand signal with vision so compromised. Setting the layout in 1950 rules out radio communication.

At the Steamtown National Historic Site in Scranton, Pa., where I volunteer in engine service, there's a place that resembles the Western Maryland in Frostburg. Some trips stop at a bridge across Roaring Brook so passengers can view the brook's rocky Nay Aug Gorge. The bridge is about two car lengths from the Nay Aug tunnel. Rarely does the stop take more than 5 minutes, but we always stop with the engine just outside the tunnel portal. This protects against a mechanical problem which keeps the engine inside the tunnel indefinitely.



Streamlined Chicago & North Western 4-6-4 No. 4008 eases out of a tunnel on the late Stan Olander's HO scale Cornbelt Northern RR. Jerry Dziedzic takes a closer look at steam locomotive operations in tunnels and confined spaces. Dave Rickaby photo

However, model railroaders rely on an advanced form of artistic licensing we call selective compression. Russian Decapods are my favorite steam design so I wouldn't let these prototype details get in the way. MR



Texas Trains & Diecast

(972) 824-7123

We buy collections of all sizes!

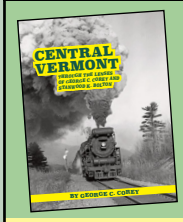
- 40 Years of Experience
- Finances Available
- Ready to Travel
- Confidential at all times
- Professional Treatment

Contact Us Today!

www.txtrains.com

texastrains@yahoo.com

SilverLake Images

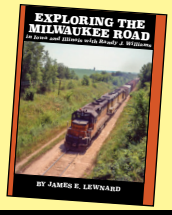


Central Vermont Through the Lenses of George C. Corey and Stanwood K. Bolton by George C. Corey

$50, 112-page softcover book

Exploring the Milwaukee Road in Iowa and Illinois with Randy J. Williams by James E. Lewnard

$50, 90-page softcover book



Ron's Books, P.O. Box 714,
Harrison, NY 10528
914-967-7541, ronsbooks@aol.com
ronsbooks.com

Mr. Muffin's Trains

A SMALLER SCALE

from

*The **BIG** Name in Trains*

4HOtrains.com

EYE CHOO CAMERA CAR!

Records high resolution videos and sound

For HO and larger scales
Supplied ready to run

www.hobbytrax.us

A Perfect Gift!

Made in UK, shipped from California office



Sample Videos

G, O, HO, N Gauges

Tiny Tim's TRAINS AND TOYS

104 S. Railroad Ave, Ashland, Virginia

804-368-0063



Not Just a Train Store
It's a Train Destination!

Watch us on VirtualRailFan.com

TrainAndToyStore.com

ORIGINAL WATERCOLOR TRAIN ART by NADINE CHARLSEN





Studio 4 North
302 E. Federal St.
Baltimore, MD 21202

Gallery open by appointment

Originals - Metal Prints - Comissions

www.nadinepaints.com
nadine@nadinepaints.com 917-656-1313

AMHERST RAILWAY SOCIETY RAILROAD HOBBY SHOW

January 30 & 31, 2027

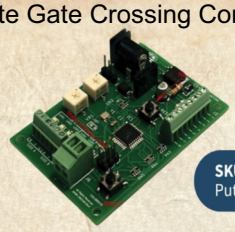
Eastern States Exposition
West Springfield, Massachusetts

railroadhobbyshow.com

America's premier railroad-themed trade show
amherstrail.org
Eastern States Exposition is the home of the BIG E agricultural fair

WANTED!!

Ultimate Gate Crossing Controller



SKU-57660001
Put it to the test.

A FEATURE WE DON'T HAVE

Think you can find one?
Find a feature on a competitor's equivalent intersection controller card that the **Ultimate Intersection Controller Card** doesn't have.

PROVE IT !
EARN $50 ACCOUNT CREDIT.
And we will add it and update our card for all past purchasers too.
Entry form and details at KandRElectronics.com

Sound and postage not included.

TRAINS & TRAVEL INTERNATIONAL

Visit our website for details
www.traintrips.biz



- GREAT CANADIAN RAIL ADVENTURE
- COLORADO NG RAIL SPECTACULAR
- CALIFORNIA RAIL SPECTACULAR
- MEXICAN RAIL SPECTACULAR (CHARTER EMD FT-A & ALCO PA)
- SAN LUIS OBISPO NG STEAM TOUR
- EUROPEAN & BRITISH TRAIN TOURS
- TOURS TO AUSTRALIA-SOUTH AFRICA TAIWAN-VIETNAM-JAPAN-INDONESIA

2027 TRAIN TOURS

P.O. Box 312 • PORTOLA, CA 96122
(800) 359-4870 • (530) 836-1944



Richard Walz's HO scale Portsmouth & Androscoggin was one of the highlights of the September 2026 issue of *Model Railroader*. Richard Walz photo

A fan of the 'Scoggin

Just wanted to take a minute and comment on the above feature in the September issue.

In my opinion this is the finest quality layout I have ever seen in your publication. Every picture in the article is just loaded with exquisite detail — you can tell the guy is a designer.

Great motivation!

Steve Royal
via email

More on the September MR

I've been a longtime subscriber to MR. My first subscription was during the 1965-66 school year when I was in elementary school. I kept it off and on during high school when other interests distracted me. But, since college I have had a subscription.

In the latest issue of MR, September, there are changes. You asked for our opinions and here is mine. The changes are a positive for the magazine IF, and I mean IF, the changes mean more content in the magazine. If MRP and GMR are going away then there should be more pages in MR.

Let me explain. I don't feel that MRP and GMR were necessary publications. I felt, when they first came out, they took content away from MR. It was a business tactic by Kalmbach to bring in additional revenue. As a result, the pages of MR were reduced. So, hopefully, the page count will go up.

Thanks for listening to my positives and negatives.

Mark Hudson
Georgetown, Ky.

The September issue of MR is a welcome major improvement. The previous 12+ issues showed a magazine in decline and I had decided not to renew my subscription after 60 years. The addition of MRP and GMR has caused me to change my mind.

The 'Scoggin article was superb. I was especially taken with the color palette and tonality. Overall, very nicely done!

Clarke Crandell
Stevens Point, Wis.

Had to drop you both a line to say how much I enjoyed September MR. I think you're on the right track.

Linn Moedinger
Lancaster, Pa.

The first thing I read when I get the new issue of MR is Tony Koester's Trains of Thought. Tony's September 2026 MR column said "We look forward to hearing from readers about the change." Herein are my experiences and thoughts.

I'm a longtime subscriber to MR, MRP, and GMR. I've had articles featured in the August 2014 issue of MR and the 2020 issue of GMR. The reason I got all three publications was the convenient renewal notification I got from Kalmbach Publishing Co. by mail each year with the option to subscribe to all three mags. This modus operandi ceased with the switch to Firecrown Media. Now I only get MR renewal notices. The last MRP and GMR mags I received are the 2025 issues.

I found GMR and MRP my favorites and I would go through each issue cover-to-cover as, in my humble opinion, modelers' layouts and efforts are the most interesting and universally applicable topics. The "Meet 'Nunzio Parafunzi'" at the conclusion of each article, giving some personal background of the layout builder, is a nice touch. Bottom line: In the absence of the GMR and MRP magazines, incorporating their content into MR seems like a viable and probably cost-saving option.

Gary Schaff
Harwinton, Conn.

I wanted to pass on a big "Thank you" for the September issue. I love the new format.

Congrats to you!

Seth Puffer
Monticello, Minn.

Just wanted to say that I enjoyed the first issue of the new and improved MR, including the three back-to-back layout articles! Well done.

Joe Green
Sequim, Wash.

I received my September issue of MR today and really like the changes to the magazine. Kudos to a great issue and I'm proud to be a part of it.

Brent Johnson
via email

Comments, suggestions, and additional information on *Model Railroader* articles and departments are welcome in this column. Every comment will be read, but not all can be printed or answered. Make your statement in 300 words or less, and send it to **Railway Post Office, *Model Railroader* magazine, 18650 W. Corporate Dr., Ste. 103, Brookfield, WI 53045,** or email **editor@modelrailroader.com**. Please include your name, city, and state.

Sign up now for these
E-Newsletters

Sign up now to receive newsletters, special offers, and more!

Trains.com • Trains • Classic Trains
Model Railroader • Classic Toy Trains

Go to
Trains.com/newsletters
today to subscribe!

SHOWCASE-EXPRESS
Wall to Wall Expandable Display Case
Case Size Available: Z, N, HO, S, O, NEW Background Themes

Lighting Kits and Backgrounds Available
Join Top to Bottom or End to End
714-842-0672
www.SHOWCASE-EXPRESS.com

CMR KITS
Really Cool Laser-cut Building Kits


NEW HO & N SCALE

The Corner Store HO & N Scale Kits
Made in USA
www.cmrtrain.com

SHOP ON-LINE 24/7 TRAINWORLD®.com
WE SUPPLY THE WORLD
TRAINWORLD® TRAINLAND
AMERICA'S LARGEST INTERNATIONAL MAIL ORDER DISCOUNT TRAIN STORE
N, HO, On30 SUPER SAVINGS SALE
10% OFF
$100.00 and OVER BEFORE TAXES & SHIPPING CHARGES
@ TRAINWORLD®.COM On-line Orders Only
Use CODE Word MRND26 In Discount Code Box
SALE ENDS December 16, 2026
MODEL RAILROADER
THIS MONTH'S SPECIAL
Limited Quantities
LIONEL HO 2554300 TRAINWORLD EXCLUSIVE BOX CAR PENNSYLVANIA GREEN
SUPER DEAL $39.99
MORE SALE ITEMS @ trainworld®.com
• CODE WORD MUST BE APPLIED AT TIME OF ORDER
• IN STOCK ITEMS ONLY
• NO NEW ARRIVALS; NO BACK ORDERS
• NO PRE-ORDERS
• NOT REDEEMABLE FOR CASH OR GIFT CARDS
• LIMITED QUANTITIES ON CERTAIN ITEMS
• DISCOUNT DOES NOT APPLY TO SALES TAX OR SHIPPING & HANDLING
• NO REBATES, NO REFUNDS, NO STORE CREDIT ON PREVIOUSLY SOLD ITEMS
• CANNOT BE COMBINED WITH OTHER OFFERS OR OTHER DISCOUNTS
• NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS
The Products We Sell Are Not Toys and Are Not Intended For Use By Children Under The Age Of 14.
SIGN-UP FOR OUR E-MAIL SALES 1-800-541-7010 e-mail: ORDERS@TRAINWORLD®.COM
HUGE INVENTORY • GREAT SELECTION • FAST SHIPPING
725 McDONALD AVE., BROOKLYN, NY 11218

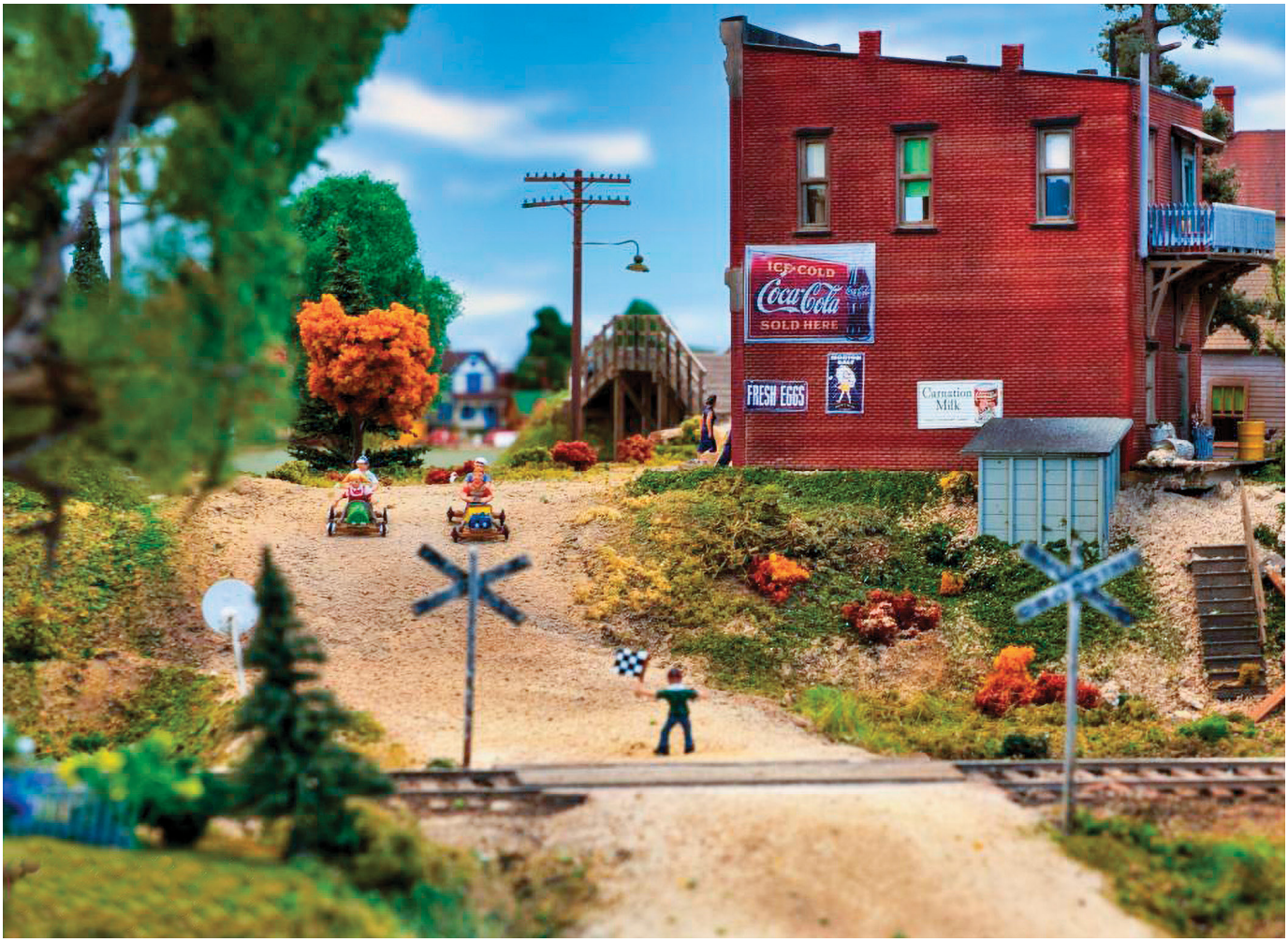
SPRING CREEK MODEL TRAINS
DESHLER NEBRASKA
One of the largest H0 & N-Scale Inventories Around!
Scenery, Details, Books, Tools & More
SpringCreekModelTrains.com
402-365-7628
"like" us on facebook

TRAINSHOW.COM
The best place to find Train Shows
Greenberg's Train & Toy Show
America's Train & Toy Show since 1976
Great Train Shows
Quality Train Shows from coast to coast
Great Midwest Train Show
The best place to buy & sell trains since 1971
UPCOMING SHOW SCHEDULE
Nov 1 Wheaton, IL - DuPage County Fair
Nov 7-8 Monroeville, PA - Convention Center
Nov 21-22 Wilmington, MA - Shriner's Auditorium
Nov 28-29 Edison, NJ - New Jersey Expo Center
Nov 28-29 Collinsville, IL - Gateway Convention Ctr
Dec 5-6 Timonium, MD - Maryland State Fair
Dec 5-6 Scottsdale, AZ - WestWorld
Dec 6 Wheaton, IL - DuPage County Fair
Dec 12-13 East Moline, IL - Bend XPO
Dec 12-13 Pleasanton, CA - Alameda County Fair
Dec 19-20 Ventura, CA - Ventura County Fair
Jan 2-3 Kansas City, MO - KCI Expo Center
Jan 2-3 Boise, ID - Expo Idaho
Jan 3 Wheaton, IL - DuPage County Fair
Jan 9-10 Oaks, PA - Greater Philadelphia Expo Ctr.
Jan 9-10 Columbus, OH - Ohio Expo Center
Jan 9-10 Ridgefield, WA - Clark County Event Ctr.
Jan 16-17 Richmond, VA - Richmond Raceway
Jan 16-17 Novi, MI - Vibe Credit Union Showplace
Jan 16-17 Puyallup, WA - Washington State Fair
Jan 23-24 Saint Charles, MO - Convention Center
Jan 23-24 Kennewick, WA - Benton County Fair
Jan 30-31 Grayslake, IL - Lake County Fairgrounds
For info & tickets: TRAINSHOW.COM

Real-World Braking for Your Layout
Independent, Automatic, and Dynamic Braking let you handle your locomotive with the realism of the prototype. Whether you're switching cars or bringing a heavy train down a grade, SoundTraxx gives you the control to operate with confidence.
Because realistic operation is what makes model railroading fun.


SOUNDTRAXX
Real Sound. Real Control. Real Fun!
Durango, CO | USA | (970)259-0690
sales@soundtraxx.com
SOUNDTRAXX YouTube channel
See advanced braking in action on the SoundTraxx YouTube channel.

Scenery with shop rags



Tired of messy plaster-based scenery techniques? Gregg Condon shares his latest discovery, shop rag scenery, which uses blue shop towels, construction adhesive, and spackle. Photo above by Todd Condon, process photos by Pat Condon

Scenery is a popular topic in the pages of *Model Railroader* magazine and has been for much of its 90-plus years. Plaster-based techniques are often mentioned in these pages. But let's face it, the traditional scenery method is a sloppy mess to prepare, a drippy mess to apply, and an everywhere mess to clean up. There has to be a better (and neater) way.

Four layouts ago I discovered a convenient method of building terrain with cloth and caulk. I called my method clothshell scenery because I took swatches of old shirt or towel material and coated them with Liquid Nails or Loctite construction adhesive. For 15 years I've been using clothshell scenery in place of methods that entailed mixing plaster or other media in a bowl and dipping paper towels or gauze into it. [You can read more about clothshell scenery in the June 2013 issue of *Model Railroader*. Gregg also hosted a how-to video illustrating his techniques, which you can watch on Trains.com. — *Ed.*]

I currently have a major layout expansion in progress. Though clothshell scenery has worked well for many years, out of curiosity I wondered if there might be a material even better than cloth. An exploratory walk through the aisles of a local home improvement store identified a clear answer — shop towels. "Great," I thought. "This will be even better than old shirts!"

I selected Tool Box professional blue shop towels, but there are other brands to pick from. Then I remembered that construction adhesive in caulk tubes can be stiff and difficult to spread. While perusing construction glues, I decided to try Titebond Fast Grab FRP Adhesive. It's a water-based product, so it's safe to use with extruded-foam insulation board.

Follow along as I walk you through the steps of scenery with shop rags. As you will see, it's a simple technique that you can add to your bag of scenery-building tricks.

Gregg Condon lives in Menomonie, Wis., in the western part of the Badger State. He is a longtime contributor to the pages of Model Railroader *and its special issues. Gregg is National Model Railroad Association Master Model Railroader No. 537.*

STEP 1 SHOPPING LIST



Ingredients for my shop rag scenery technique are pretty basic: blue shop towels, construction adhesive, spackle, and putty knives. Though I used Tool Box blue shop towels, most any brand will do. The towels are offered as individual rolls, multi-roll packs, and contractor boxes. This gives you plenty of options depending on the size of your scenery project.

The most expensive item for shop rag scenery is the Titebond Fast Grab FRP Adhesive. The construction adhesive is designed for attaching fiber-reinforced plastic panels, plastic laminate, wainscoting, and similar sheet materials to various porous surfaces. The water-based product is available in 1-, 3½-, and 4-gallon pails, as shown at right above. It can be found at most big-box home improvements stores.

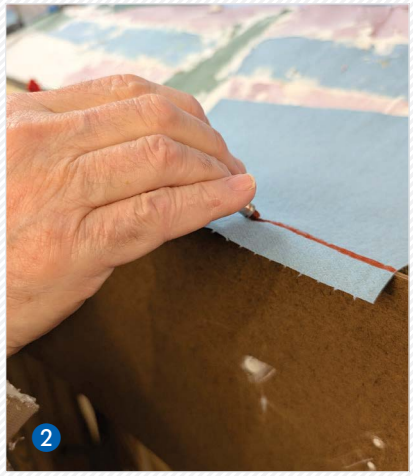
Lightweight spackling may be applied to smooth out any seams after the adhesive has cured. I've had success with Red Devil's Onetime lightweight spackling. The spackling precludes the need for an additional layer of scenery material, such as troweled-on plaster or Sculptamold. Those products can be used, but spackling goes on fast and provides a mess-free scenery base.

You'll want to have putty knives in a few sizes for applying the lightweight spackling. The one shown in the photo has a 3" blade. Versions with narrower blades are handy for smaller surfaces and tight locations.

STEP 2 LEARNING THE ROPES



1


2


3

Shop towel scenery is an easy technique to learn. First, I cut pieces of blue shop towel into pieces to fit the area I'm working on. Then, using a plastic putty knife, I apply Titebond FRP Adhesive to one side of the shop towel. A scrap of cardboard or an old file folder, the latter shown 1, makes a good disposable work surface.

When the adhesive is still wet, it can be cleaned with water. Rubber gloves are a good option if you want to keep your hands clean during long scenery-building sessions.

One of the advantages of shop rag scenery is that it can be applied in any shape or size. As you can see in 2 I used a marker to indicate the top of the fascia on a piece of shop towel.

After I trimmed the towel to size with scissors, I applied the construction adhesive to the side that would be against the plywood benchwork and tempered hardboard fascia. Photo 3 gives you an idea of how much adhesive I apply to the towel. Though it's a fairly even layer, it's OK if there are a few small ridges.

STEP 3 PRACTICAL APPLICATION



Shop rag scenery can also be used to complement other scenery building techniques. For example, when a landform is constructed with extruded-foam insulation board, the adhesive-coated shop towels can be used to smooth out the ridges between layers 1. Also notice how I applied thinner strips of towel around the plaster rock casting by my right hand to help blend it into the foam.

Sometimes I make profile boards out of extruded-foam insulation board. I round the edges of the foam to prevent the sharp edges from showing through the shop towels. I later used a second towel to cover the space on the right in 2.

Naturally, shop rag scenery can be applied on top of all the traditional bases for landforms, including cardboard lattice, masking tape web, mounds of foam packing peanuts, contoured wire screen, plywood cut to contour, and whatever else your imagination can conjure 3.

Shop rag scenery is easy to apply and much neater than plaster-based scenery options. It's one more alternative for building basic landforms upon which to apply final scenery products. I hope you give this technique a try. MR







Inspired by a scale drawing of a vintage ventilated boxcar in the April 1962 *Model Railroader*, Jerry Lauchle scratchbuilt this HO scale model of that Central of Georgia watermelon car.

Build an HO scale VENTILATED BOXCAR

Prototype plans from the April 1962 issue of *Model Railroader* inspired this modeling project

By Jerry Lauchle
Photos by the author

Over the years I have collected many sets of dry transfers for HO scale freight car lettering, first from Irv Schulz (*Great Model Railroads 1995*), and later from Clover House (clover house.com). One set from the latter supplier was for a Central of Georgia (CG) ventilated boxcar. Included with that set of dry transfers are prototype car construction notes, color schemes, and a reference to the April 1962 *Model Railroader* which featured drawings by J. Harold Geissel [The drawings are reproduced on page 30. — *Ed.*] I now had the lettering and the boxcar drawing; all that was needed to scratchbuild an HO scale model of this car.

Ventilated boxcars were used chiefly to carry fruit. These cars had bars or slats in the doors and end hatches to allow air to flow through the car to prevent the fruit from spoiling. These cars were phased out of service in the early 20th century when ice bunker refrigerator cars were developed. Many in the South referred to the ventilated boxcar as a "watermelon car," and they were used to move that commodity well into the 1960s. Refrigerator cars were superior to the ventilated boxcars because they cooled the produce by the ice in the end bunkers. They could also act as "ventilated cars" by propping open the ice hatches located on the roof ends.

Another feature of the ventilated boxcar was that it also had solid side and end doors that could be used instead of those with bars. In extremely cold weather, or when the cars were loaded with non-perishable commodities, the barred doors were slid away from the opening and the solid doors slid over the opening. The Geissel drawing shows the solid doors over the opening.

Developing a plan for the model

I found the April 1962 issue of *Model Railroader* in the archives section of Trains.com. It was easy to find and download a PDF of the magazine. From that I printed the two pages of the article, "Old standard and narrow gauge house cars." The standard gauge Central of Georgia ventilated boxcar drawing is at the top of the first page, and a drawing of a narrow gauge Denver & Rio Grande Western reefer is right below it. The second page has a drawing of a narrow gauge D&RGW boxcar along with four photos of the two narrow gauge cars. There are no photos of the CG boxcar.

After trying numerous online searches, I found only two photos of a CG ventilated boxcar. Neither had the same lettering as the Geissel drawing and they didn't have a flag to the right of the solid side door. I reduced the Geissel drawing by 25% on my home printer, bringing it to HO scale. This assisted me in making a plan showing all of the model construction details [See page 32. — *Ed.*] Except for a couple of metal and plastic parts, the car was built with Northeastern Scale Lumber and Kappler scribed siding; both are basswood.



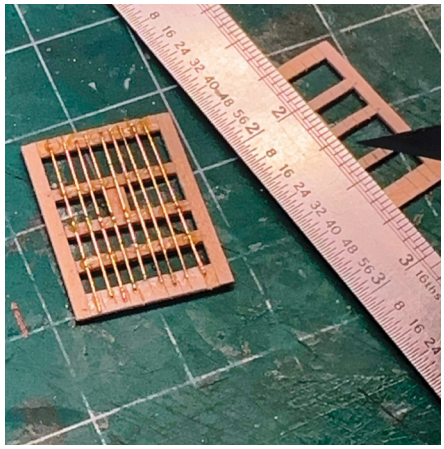
1 Jerry hand-formed the bolsters from 12 x 12s following his drawing. He built up the center sill from three 4 x 10s, and used LaBelle passenger car needle beams with 12" queen posts for the truss rods.



2 Jerry used 25-pound test monofilament fishing line for the truss rods. To make them look more like the prototype, he modeled the truss rods in two pieces, leaving an open space in the middle of the turnbuckle.



3 Eight vents (four per side) are required on the lower part of the car sides. Jerry used Kappler scribed siding for the louvers. He re-created the frames with pieces of Northeastern Scale Lumber HO scale 1 x 2.



4 After building the framework for the ventilated doors, Jerry turned them over and scribed nine evenly spaced grooves. He then cemented .015"-diameter phosphor bronze wire in the grooves.

Building the model boxcar floor

I started this project with the floor, which I made from a piece of 1/16"-thick scribed siding laminated to another piece of un-scribed 1/16"-thick basswood. Because the doors on my model are positionable, the scribed wood with 6" scale spacing on the upper side can be seen. I stained it to look like individual boards.

I cut bolsters from 12 x 12 lumber using the profile shown in Section A-A of the plan on page 32. I shaped the bolsters using a very fine razor saw, a small sanding block with 120 grit paper, and needle files. The center sill was built up from three pieces of 4 x 10.

I found two pair of LaBelle cast metal needle beams with two queen posts on each beam in my parts box. The posts were about 12" long, which matched the plans, so I cut them off with a jeweler's saw and cemented them to wood needle beams formed to fit on each side of the center sill 1. At this point, I installed the Westinghouse KD brake system following the instructions provided by the manufacturer of the plastic pieces.

The turnbuckles that adjust the tension of the truss rods under the car floor came from Precision Scale Co. I chose plastic ones that are 7/32" long with .022" boring. I used 25-pound test Maxima fishing leader material for the truss rods. This size was chosen because its diameter is .020".

Having built many freight car kits with truss rods, I found that all kit instructions directed the builder to run a single piece of the monofilament through the four turnbuckles and then weave the line through eight holes drilled in the floorboard just in front of the bolsters. I've felt this approach results in turnbuckles that don't look prototypical because the truss rod goes straight through the turnbuckle.

The approach I use now is to model each truss rod in two pieces like the prototypes with the turnbuckle being the joining member. I thread one piece of the monofilament through the turnbuckle from the inside. Then I quickly pass the inside end of the monofilament through an open flame created by a lighter. This melts a small bead on the end of the line.

The procedure is repeated for the other half of the truss rod. When pulled tight, the beads prevent the fishing line from pulling out of the turnbuckle 2. I've also used this method by cementing the monofilament to the end of the turnbuckle with gap-filling cyanoacrylate adhesive (CA).

Materials list

Cal Scale
190-290 KC air brake set
190-501 .012" wire lift rings
190-509 grab irons

Hi-Tech Details
6038 AAR 22" air hoses

Kadee Quality Products Co.
5 Magne-Matic couplers
501 arch bar trucks

Kappler Mill & Lumber Co.
KP001P12 1/32" x .040" scribed siding

Krylon spray paint
Red Oxide and Black primer

Northeastern Scale Lumber
various 2 x 4, 4 x 6, 12 x 12, etc.

PanPastel
740.3 Burnt Sienna shade
780.8 Raw Umber tint
800.5 Black
820.3 Neutral Gray shade

Plastruct
90041 ABS 1/16" channel

Precision Design Co.
custom-produced HO scale Central of Georgia decals

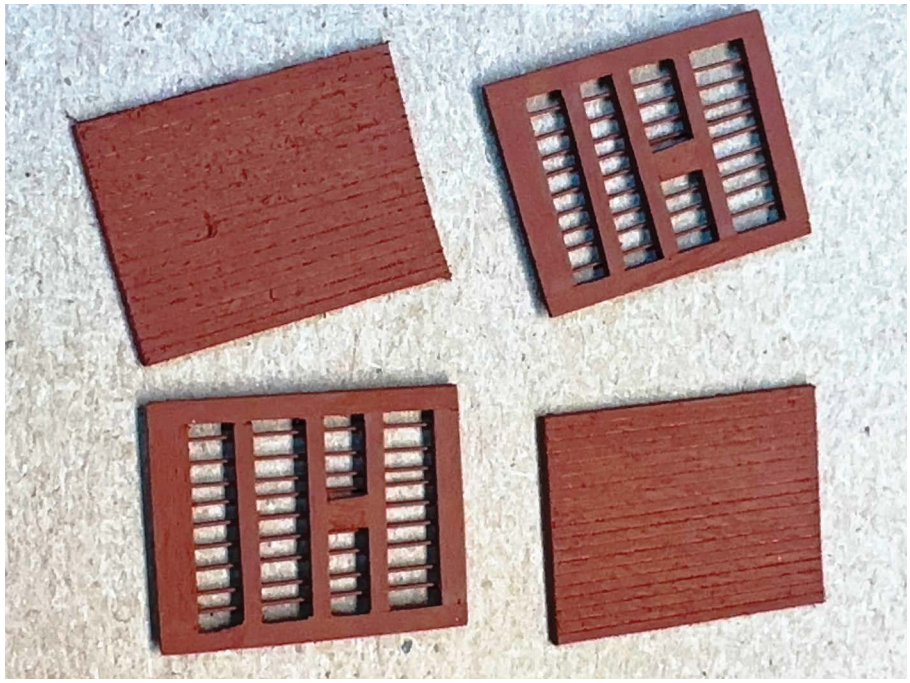
Precision Scale Co.
32114 stirrup steps
48235 turnbuckles
48263 nut-bolt-washer castings

Tichy Train Group
1101 .010" phosphor bronze wire
1102 .015" phosphor bronze wire

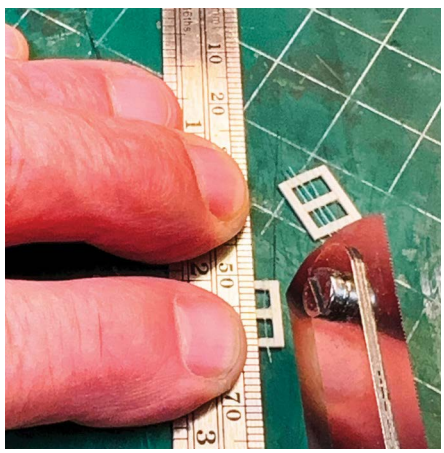
Testor Corp.
1260T Testor's Dullcote

Miscellaneous
Deluxe Materials Rocket Card Glue
Evergreen Premium White Wood Glue
Floquil Mud paint
Stick Fast cyanoacrylate adhesive
Microscale Micro Sol

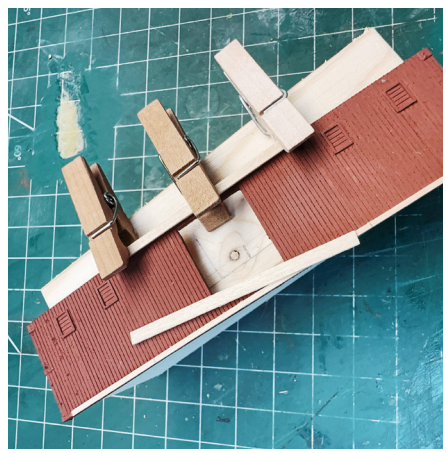
Scrap box
1/16" and 1/8" thick basswood sheets
1/16"-thick scribed basswood siding, 6" HO scale spacing
brass strips with embossed rivets
LaBelle HO passenger car needle beams
metal lift rings and strap hinge barrels



5 Jerry sprayed the ventilated and solid boxcar doors with Red Oxide primer.



6 The small ventilation hatches on the car ends were made using the same procedure as the side doors, except Jerry replaced the phosphor bronze wire with .006"-diameter mono-filament for the vertical rods.



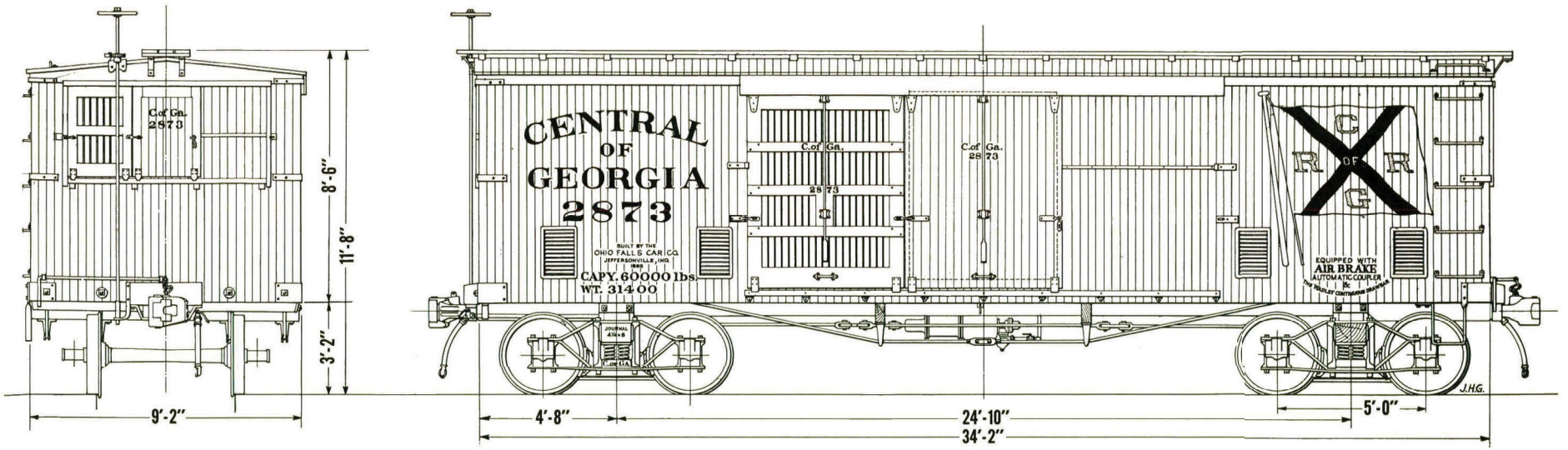
7 Jerry made the side door tracks by cementing 2 x 10 and 2 x 8 boards on top of 3 x 3s that were first glued to the top and bottom of the sides, respectively. The 3 x 3 on the top runs the full length of the car side.

Next, I inserted each truss rod into a pair of the eight holes drilled into the floorboard just in front of the bolsters. I then glued the truss rods in place on the upper side of the floorboard while the turnbuckles rested on the needle beams between the queen posts. After the glue set, I lifted the truss rods up onto the queen posts, which provided automatic tensioning. The underside of the floorboard was then spray-painted with Krylon Black primer.

Once the floorboard was completed, I proceeded to make the boxcar end blocks from 1/8"-thick basswood and cut the notches for the 1/8" square longitudinal roof and side supports. After assembling the car's core as shown at the top of the plan on page 32, I added 3 ounces of weight to match National Model Railroad Association (NMRA) Recommended Practice 20.1. I made a small rectangular wooden mold, and filled it with molten casting metal to form the weights. I used 160-degree melting point casting metal, which can be found at various brick-and-mortar and online retailers.

Building the car sides and ends

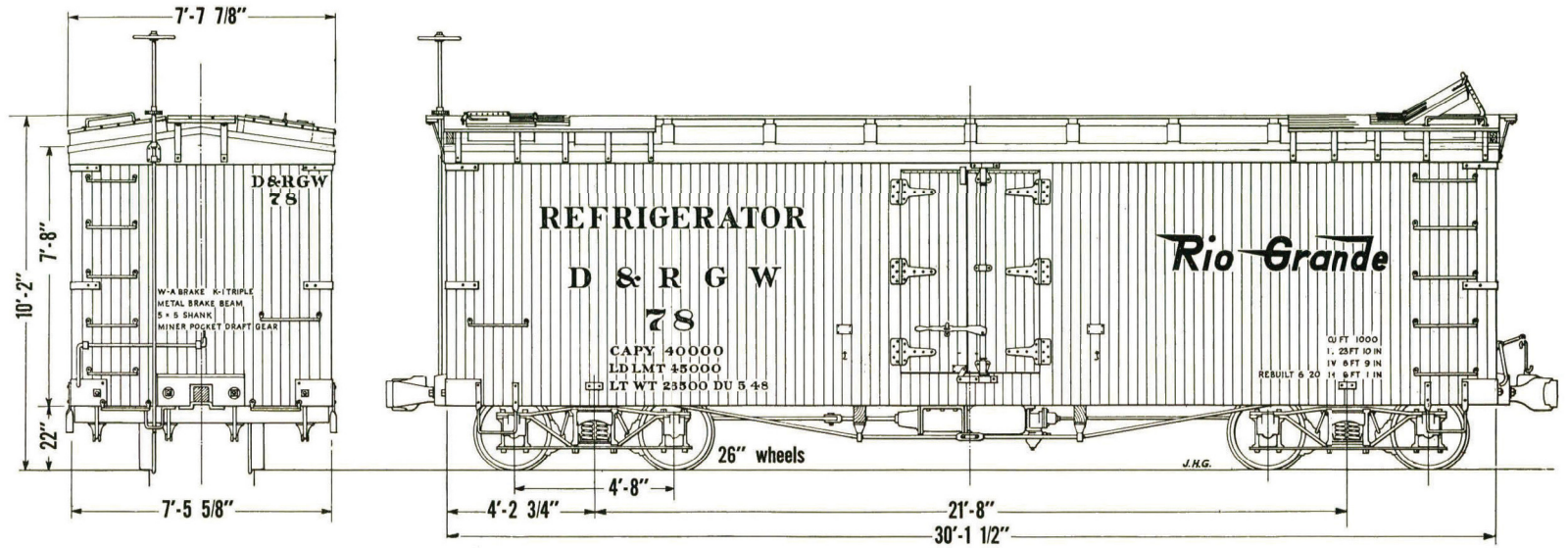
The car sides, ends, and solid doors were all cut from Kappler 1/32" x .040" scribed siding. I cut the opening for the

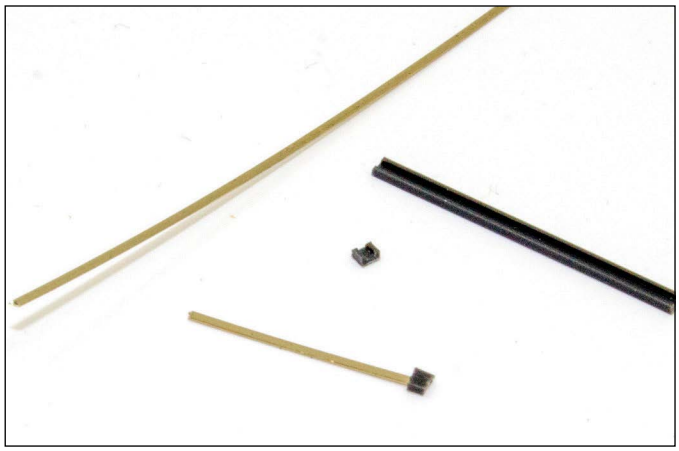


Old standard- and narrow-gauge house cars

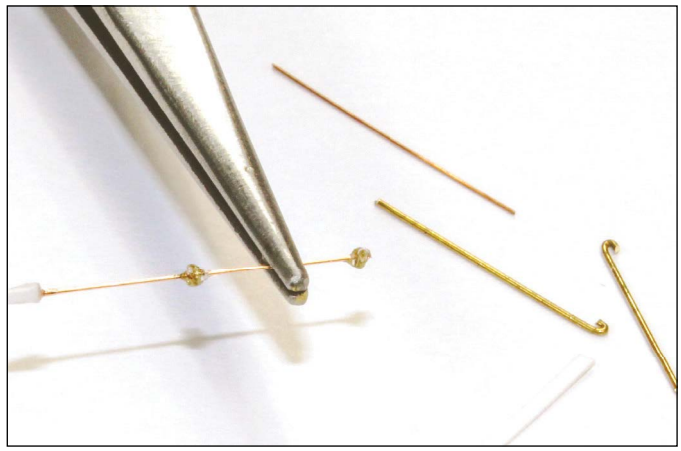
Drawn for MODEL RAILROADER MAGAZINE by
J. H. GEISSEL
Plans in MODEL RAILROADER may be photocopied for noncommercial use only.

This drawing by J. Harold Geissel of the standard-gauge Central of Georgia ventilated boxcar appeared in April 1962 *Model Railroader.*

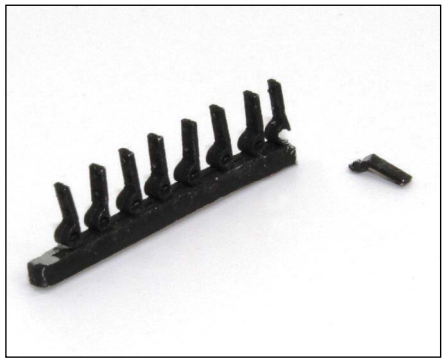




8 After placing the ventilated and solid doors into the tracks, Jerry made four door stops from pieces of 1/32" wide x .006" thick brass strip and 1/16" plastic channel. A short piece of the plastic channel slips over the end of the brass strip creating the door stop.



9 The door latches were made from the .010" phosphor bronze wire and the guides from .012" brass wire. The guides were fastened to the latch with CA before the long stem was cut off. A rectangular piece of styrene was fastened to the lower end with CA to form the handle.



10 The lower door guides were made from strap hinge barrels by grinding the back side away with a cut-off disk in a motor tool. Use caution when doing this and wear personal protective equipment, including eye protection.



11 Here's a close-up view of the side doors, stops, door latches, and guides. The door latches and guides are fastened only to the doors so they can slide freely in the door tracks that were made from scale lumber.



12 Jerry fashioned the running board from three pieces of 2 x 8 stripwood. He then added 17 support brackets to the bottom of the boards and sanded vee-shaped notches in them to match the roof's profile.

main door and four vents into each of the sides using a hobby knife with a No. 11 blade.

In an attempt to model the louvers, I cut the eight vents that measure 3/16" x 1/4" from the same scribed siding. Then I enclosed the louvers in a frame made from 1 x 2 stock as shown in 3 on page 28. I attached them to the car sides while they were flat on the workbench.

The ventilated side doors were made by laying wax paper over the full-size drawing of that door shown on the plan, and gluing the individual pieces of lumber together as indicated. I turned the doors over and scribed nine equally spaced vertical grooves into the frame with a hobby knife.

I cut the bars to length from .015"-diameter phosphor bronze wire that I placed over the vertical grooves. I placed a small steel weight over them at the center to hold them in place. Satisfied that the wires were properly aligned, I glued the ends of each wire with gap-filling CA. After removing the weight, I cemented the wires to the remaining frame members 4. I spray-painted the parts made up to this point with Krylon Red Oxide primer 5.

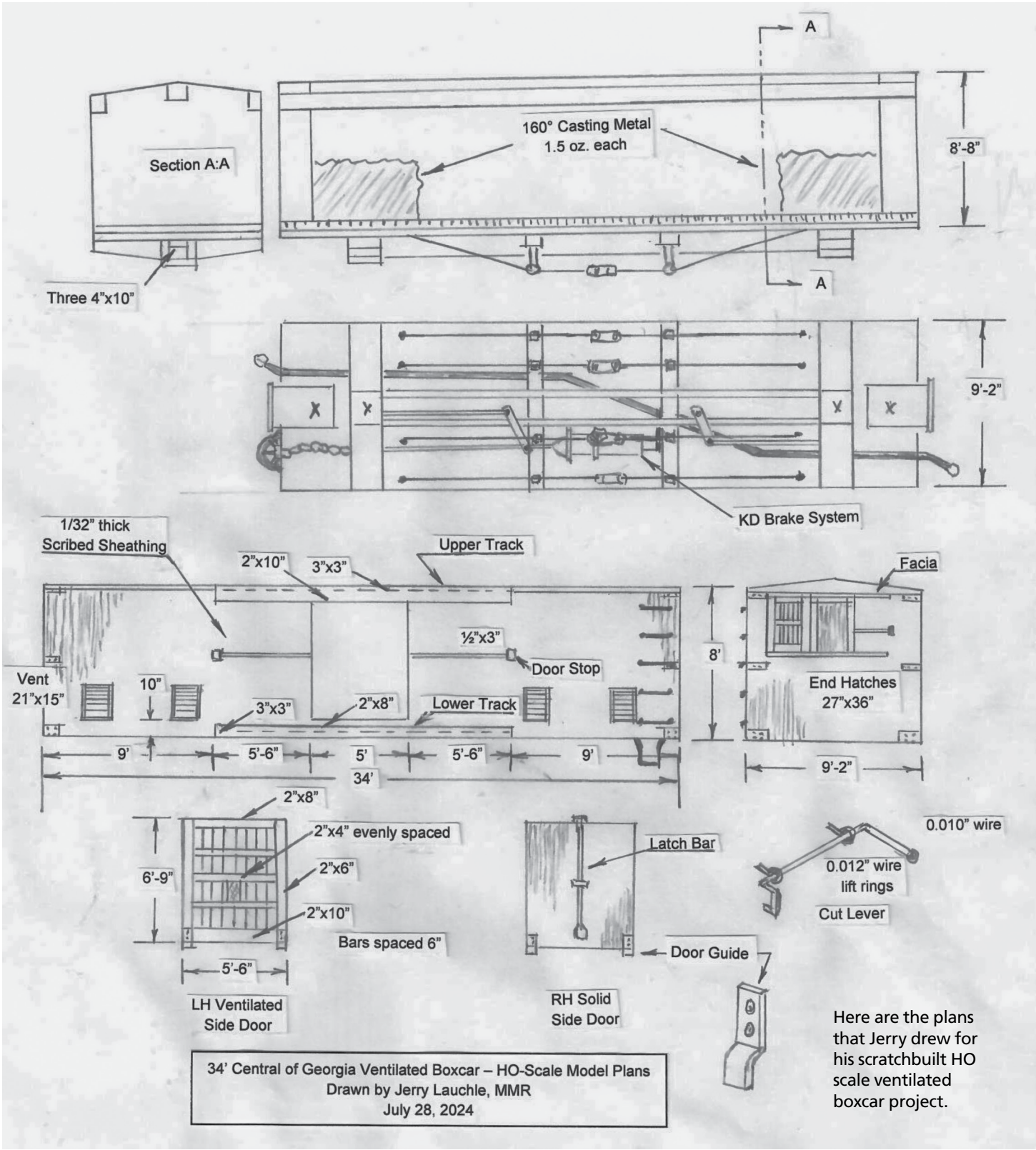
The end hatches were made following the same procedure used for the side doors 6. The bars for these hatches are .006"-diameter fishing line. I first cemented one end of the line at the top. After the glue had dried, I put a small weight on the frame, and another on the line extending past the bottom of the frame making it taught and parallel to the stiles. I then glued the line to the bottom rail. After all the rods were in place and the had glue cured, I trimmed the line with a knife at the top and bottom.

I made the upper and lower side door tracks from scale lumber. First, I attached a scale 3 x 3 to the top edge of the side. Then a second 3 x 3 — the length of three door widths — was cemented to the bottom edge, centered on the door opening. Finally, I glued a 2 x 10 and 2 x 8 over the 3 x 3s forming top and bottom door channels, respectively 7.

I then placed the ventilated and solid doors into the tracks and found they could be moved back and forth as intended. I positioned the ventilated door over the opening and the solid door to its right. I fabricated door stops for all four doors 8 and cemented them to the car sides, permanently securing the doors in their tracks.

I made door latches from .010" phosphor bronze wire secured with half rings fashioned from .012" brass wire. The latch handle is a small, thin piece of styrene 9. The guides located at the bottom corners of the doors help them stay in their tracks.

I found a set of cast metal strap hinge barrels in my scrap box. I ground away the back half of the barrel to form the



Here are the plans that Jerry drew for his scratchbuilt HO scale ventilated boxcar project.

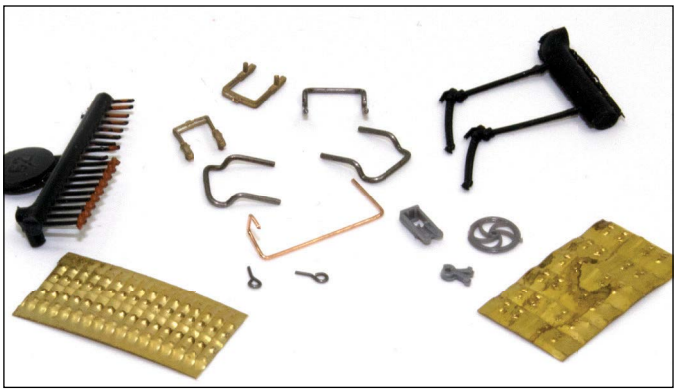
guides ⑩. Plastic strap hinges are available from San Juan Model Co. (sanjuanmodelco.com). Once the details were secured to the model, I sprayed them with the Krylon Red Oxide primer ⑪.

The car ends were also made from the scribed siding. I used plain basswood for the 1/32"-thick fascias. The ventilated and solid end hatches are fixed in place below the fascia. I used 1 x 3s and 1 x 1s for the tracks and stops, respectively.

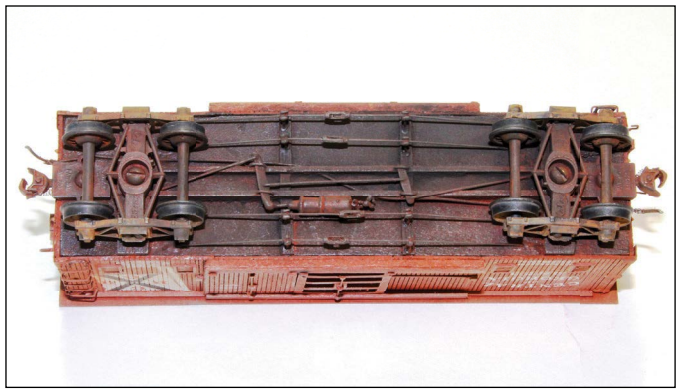
Assembly, details, and lettering

The car sides and ends were glued to the core. I measured the roof size, then cut it from the same scribed siding, painted it, and glued in place. The running board consists of three 2 x 8s. I cut the 17 roof supports from 2 x 2 stock and glued them to the 2 x 8s.

While the scratchbuilt running board was upside down on the workbench, I sanded a vee-shaped depression in the center of each support with a pointed sanding block. See ⑫ on the previous page. This permits the supports to seat



13 Details added to the car included the brake wheel, uncoupling levers, grab irons, and stirrup steps. The corner braces are brass strips with embossed rivet detail. The bottom braces are wider and have a double row of rivets.



14 This view of the weathered underbody shows the scratchbuilt truss rods, Westinghouse KD brake system, and rubber air hoses. The model is fitted with Kadee No. 5 couplers (with the trip pins removed) and arch bar trucks.



15 The finished Central of Georgia ventilated boxcar on the Jerry's HO scale Galeton & Chestnut Lake model railroad.

properly on the top of the peaked-roof wood boxcar.

After the running board was attached to the roof, I added a few more details to the car 13. These included the running board extension brackets (2 x 2s), the brake wheel and vertical brake shaft, uncoupling levers (.010" wire), grab irons, stirrup steps, and nut-bolt-washer castings, and rubber air hoses with angle cock detail.

I cut the corner braces from brass strip and added embossed rivet detail. The bottom corner braces are wider than the those at the middle and top of the car. They have a double row of rivets and were also used as poling pockets.

I started lettering the boxcar with a set of dry transfers produced by Clover House. Unfortunately, as I was applying the white flag on the car side, the vents and grab irons interfered enough that I ruined the graphic. I attempted to obtain another set (or two) from Clover House, but sadly the company wasn't actively filling orders at the time because of health issues. [The company's website says it's currently on hiatus. — *Ed.*]

I sought a supplier of custom decals and selected Precision Design Co. (pdc.ca/rr/catalog). The manufacturer produced four sets of decals for me on thin film. The turnaround time was short and the cost was reasonable.

It's always recommended to apply decals to a glossy surface, so I airbrushed a gloss varnish over the car where the graphics would be placed. I cut the decals close to the lettering with a fresh No. 11 blade to remove excess decal film. Then I dipped the decals briefly in warm water and applied them to the car.

To soften the decals and help them conform to the uneven surfaces on the car sides and ends, I applied Micro Sol setting solution from Microscale Industries with a brush. After a couple applications and overnight drying, I gently ran a No. 11 blade through all of the grooves between the boards on the sheathing. Then I applied one last coat of Micro Sol. After another night of drying, I sprayed the car with Testor's Dullcote to seal the decals and give the boxcar a uniform, flat finish.

Finishing touches

I weathered the Central of Georgia boxcar using a mutli-step process. First, I lightly sprayed the model with a wash made from 10% India ink and 90% isopropyl alcohol. The wash flowed into the recesses on the model, including the grooves between the boards on the scribed siding, darkening them and helping the individual boards stand out.

After the wash dried, I randomly brushed on PanPastel powdered pastels with a fan brush. I started with Neutral Gray, brushing it parallel to the scribed siding on the sides, ends, and roof. I then did the same with Raw Umber, Burnt Sienna, and Black. I applied the rust colors more heavily on the underside and trucks 14.

Finally, I used an airbrush to lightly weather the bottom portions of the car with Floquil Mud. I previously used Floquil Grime, but I ran out of the color [The Testor Corp. discontinued the Floquil product range in 2013. — *Ed.*] I sealed the weathering with a final spray of Dullcote 15.

The Central of Georgia ventilated boxcar has made a nice addition to the rolling stock fleet on my freelanced HO scale Galeton & Chestnut Lake RR, which is set between 1945 and 1950. If you've never attempted scratchbuilding freight cars, I hope this article provides some helpful techniques and inspiration. For me, scratchbuilding a rewarding and enjoyable aspect of our hobby. MR

The Santa Fe in eastern Illinois

This HO scale layout depicts the months leading up to the 1995 merger that created Burlington Northern Santa Fe

By Tom Cain
Photos by Dan Munson



For some people, the third time is the charm. My HO scale Eastern Illinois Santa Fe layout is my third model railroad. The first two layouts were built one after the other in a previous home with a smaller basement. The second model railroad was better than the first. The improvements were inspired by a layout tour where I came away with ideas and inspiration that I couldn't have conjured up on my own.

The Eastern Illinois Santa Fe has also benefited from seeing and operating on other layouts, along with membership in the Layout Design Special Interest Group (LDSIG) and Operations Special Interest Group (OPSIG). Support and ideas from close friends and guidelines from the SIGs greatly influenced my model railroad, helping it become a functional and appealing place to run trains.

New pet = new layout space

The story of how the Eastern Illinois Santa Fe came to be is a bit unusual. My lovely wife, Loveta, suggested that our pet Sheltie, Spencer, might benefit from having another dog around. I thought about it for a second and said, "Well, we could do that, but we would need a bigger back yard to accommodate two dogs."

We had lived in our house for 25 years and I thought that would be the end of the suggestion. Loveta replied, "Let's start looking!" I then suggested that it should be a ranch house so I'd have a bigger basement for my model railroad. With that, the hunt was on.

We found that larger yard and bigger basement in a relatively short time. It took a little while to do some basic renovation projects on the house, and I spent close to two years thinking about how to design the layout. It took another year to prepare the basement for the layout. Three more years passed before the golden spike was driven.

Staying true to the Santa Fe

I've always been a fan of the Atchison, Topeka & Santa Fe. It was the railroad that ran through Larned, Kan., my hometown. After two layouts with relatively generic themes, I wanted my new model railroad to be a specific part of the Santa Fe that I had railfanned and watched up close during trips to Illinois, Missouri, Kansas, and Oklahoma.

My membership in the Santa Fe Railway Historical & Modeling Society (SFRH&MS) encouraged my interest in building accurate, prototypical models. When contemplating the locale for my layout, I considered several iconic locations on the Santa Fe main line, such as Kansas City, Curtis Hill in Oklahoma, Abo Canyon in New Mexico, and Cajon Pass in California. However, I selected the line from Joliet to Streator, Ill., as the location was closer for onsite research and offered a pleasant mix of urban, industrial, and agricultural settings.

The LDSIG encourages the incorporation of Layout Design Elements [LDEs,



1 A trio of Electro-Motive Division road locomotives leads a freight through Streator, Ill., on Tom Cain's HO scale Eastern Illinois Santa Fe layout. The model railroad is set in 1995, months before the merger with Burlington Northern.

visually and operationally recognizable models of actual locations. — *Ed.*] to create interesting and realistic model railroads. Examples of those on my layout include the bridges over the Kankakee River and the large industries of Dow Plastics and Stepan Chemical.

I also wanted a double-track main line to facilitate the busy operation of the mid-1990s Santa Fe. I'm aware that some modelers enjoy single-track main lines with sidings to add operational interest. I felt that this level of interest could be maintained with a double-track main that accommodated local trains.

References that I obtained through the SFRH&MS and books published by fans of the Santa Fe helped with the selection of specific modeling locations and LDEs. While attending one of the society's conventions I purchased a track chart book that provided information on where bridges, grade crossings, and railroad structures were located at milepost-level detail. I had the opportunity to watch trains at some of the locations in the book and take pictures of specific buildings, terrain, and features that I wanted to incorporate into the layout.

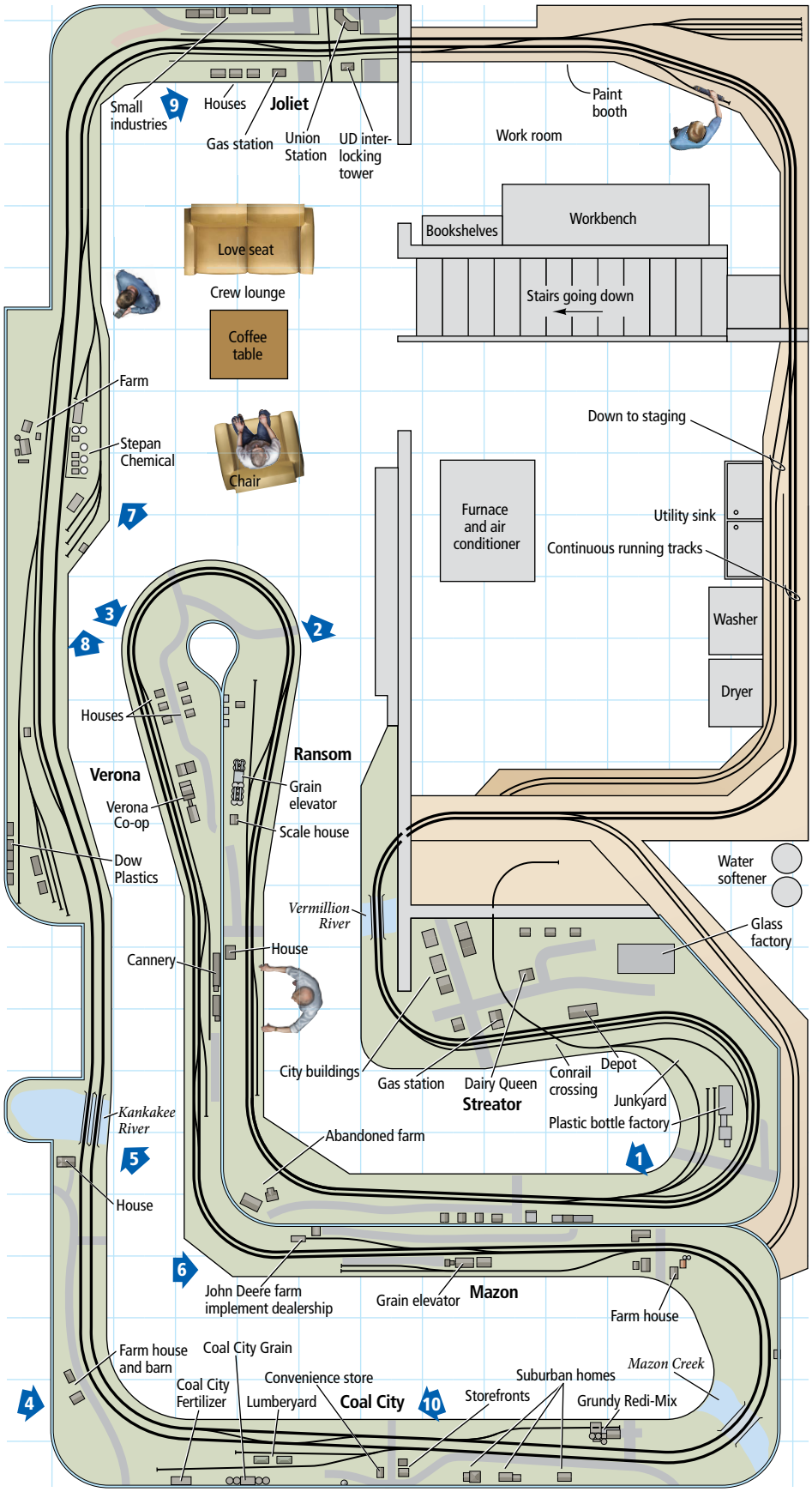
Considerations and preparations

With the location and setting of the railroad established, I began studying how to fit as much railroad into the space as possible. This is where research and ideas from the LDSIG and OPSIG were particularly helpful.

A specific area of focus was making sure there was sufficient space for operators. This meant providing enough room two or three people to stand near each other without feeling crowded. I calculated minimum dimensions for "pinch points" in aisles and balanced that with the minimum radius requirements for reliable operation of trains and rolling stock. Also factored into the equation was how much railroad I could afford to build and maintain.

In addition, I wanted the layout to be interesting to operate and share with others who were fans of the Santa Fe. My membership and participation in the Central Indiana Division of the NMRA meant that I could host open house events. I wanted a point-to-point layout to support authentic operation, but hosting open houses meant a continuous run option would be beneficial.

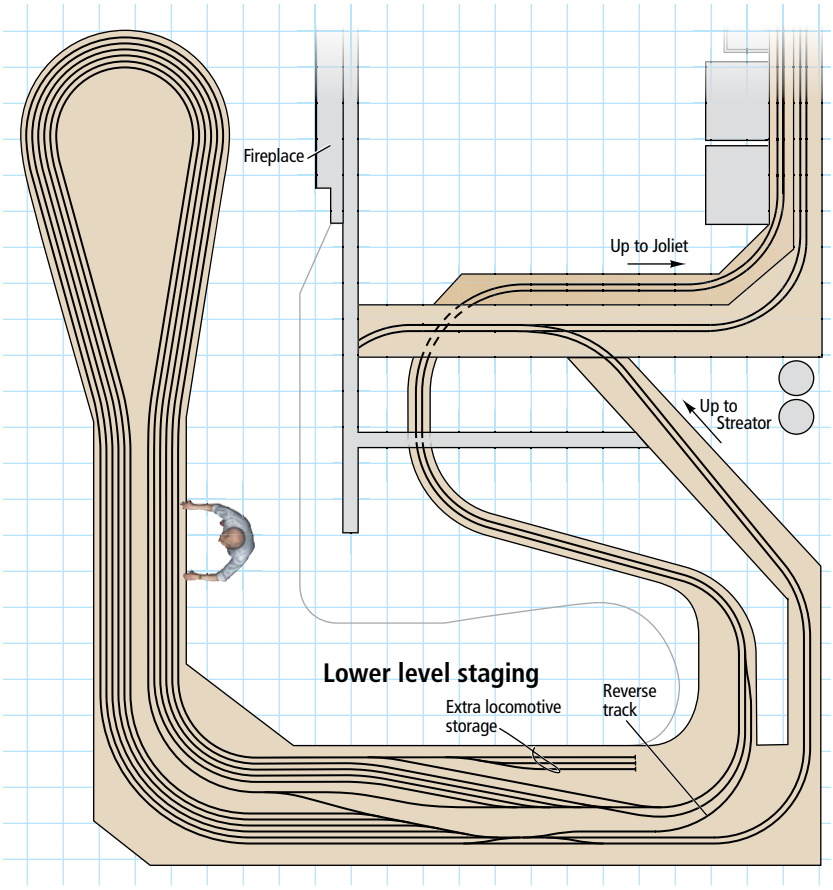
Before any benchwork could be cut, I needed to do some basement preparations. This included removing a wall and replacing it with a heavy-duty steel



Eastern Illinois Santa Fe

HO scale (1:87.1)
Room size: 26 x 48 feet
Scale of plan: 3/16" = 1'-0", 24" grid
Numbered arrows indicate photo locations
Illustration by Kellie Jaeger

Find more plans online in the Trains.com Track Plan Database.



The layout at a glance

Name: Eastern Illinois Santa Fe
Scale: HO (1:87.1)
Size: 26 x 48 feet
Prototype: Atchison, Topeka & Santa Fe
Locale: Joliet to Streator, Ill.
Era: 1995 (before the merger with Burlington Northern)
Style: double-deck walk-in
Mainline run: 200 feet (double-track main)
Minimum radius: 30" (main)
Minimum turnout: No. 6
Maximum grade: 2% (staging to layout)
Benchwork: open grid
Height: 41" to 50"
Roadbed: HomaBed (California Roadbed Co.)
Track: code 83
Scenery: drywall compound with paint mixed in
Backdrop: photos and hand-painted
Control: NCE Power Pro DCC



2 Santa Fe General Electric Dash 8-40CW No. 819, decorated in Super Fleet colors, is in charge of an auto train passing through the village of Ransom, Ill. Waiting in the hole is a local train with rebuilt GP7 No. 2012 on the point.



3 After spotting covered hoppers at Verona Co-op, a pair of Santa Fe road switchers rolls back toward the main line. The double-track main provides room for local trains to handle industrial switching without slowing down priority freights.

beam, waterproofing, removing a wet bar with a large mirror, and adding a new wall and a finished ceiling over part of the basement. These tasks were accomplished with help and support from Paul W. Brown; Bud Klumph; and Frank Hughes, Master Model Railroader No. 29.

From plan to reality

The layout's open-frame benchwork consists of 1 x 4 pine boards that were built into 6- and 8-foot boxes attached to the existing furring strips in the wall. The front edge of the benchwork is supported by 2 x 2 legs that were ripped on a table saw. The legs were set back about 6" so operators could be close to the layout without tripping on the 2 x 2s.

The model railroad was designed to follow the walls of the room. In most locations, the benchwork is only 12 to 18 inches deep. Because of the unusual shape of our basement, there are some deeper reaches, but that adds interest to the model railroad.

The tabletop is ½"-thick plywood, supported by joists spaced every 18" or less. This construction proved to be quite sturdy. During one work session I discovered Frank had crawled up on the layout to reach into a corner and it was supporting his weight with no problem.

Layout construction also required cutting holes through three walls to facilitate continuous running and to reach a staging yard. After about 40 feet of construction along the first wall, the division of labor in layout construction evolved to where Frank started adding scenery to the parts of the model railroad that had been built. Frank contributed greatly to the construction of the layout, but his passion had always been scenery. I benefited from his talents.

Along the line

To get a better feel for the Eastern Illinois Santa Fe, let's take a tour of the line. Starting at Joliet, traveling east to west, we see Joliet Union Station and some downtown buildings behind it. Across the tracks from the station is the UD interlocking tower. Just beyond the station, below the elevated track, are residential homes.

Departing Joliet, the railroad passes through a wooded area that leads to the largest industries on the model railroad, Stepan Chemical and Dow Plastics. Both of these industries have loading and storage tracks for receiving and holding empty or loaded cars.

This part of the layout has two tracks that are meant to be dedicated right-hand running main lines. One line was a Santa Fe track. The other was originally owned by the Gulf, Mobile & Ohio, but Santa Fe had trackage rights on the line until it acquired the track in the late 1940s. Since these lines were originally owned by different companies, both had their own right of way.

Next, the tracks cross the Kankakee River. The east approach to the river travels through the Des Plaines Conservation Area. The adjacent bridges are two different styles and were built at different times. One has a steel deck; the other a concrete deck.

Continuing west, the next location on the railroad is Coal City, where a grain operation, lumberyard, and concrete ready-mix plant are located. The track then passes over Mazon Creek before reaching the creek's namesake, home to a grain elevator and John Deere farm implement dealership.

Verona and Ransom, the next two communities on the line, both have grain elevators. In addition, Verona boasts a cannery. This is where living close to the prototype paid off. I have visited both villages often and used the photos taken during my research trips to design scenes.

The west end of the layout depicts Streator. Today, a plastic bottle plant is located here. In the past, Streator was known for glass bottles. A large glass factory — not rail served — is still located here. The Santa Fe has an at-grade crossing with Conrail at Streator, and the two railroads interchange traffic.

I'm beginning to design and build the downtown area of Streator using photos taken during visits, along with images from Google Street View and Bing Maps bird's eye views.

Running trains

While railfanning the Santa Fe in eastern Illinois, I enjoyed watching trains charging over the transcontinental main line. Many were intermodal trains



4 At Coal City, a maintenance-of-way crew is having a job briefing before taking care of some track repairs. Over on the main, the signals have dropped as a Santa Fe EMD SD45-2 brings a freight through the village.



5 The Kankakee River crossing is one of the scenic highlights on Tom's model railroad. The bridge in the foreground has a concrete deck. The one that the Santa Fe Geeps are on has a steel deck.

with containers riding in three- and five-unit articulated well cars. Other intermodal trains had high-priority goods in 45-foot semi trailers riding on flatcars and spine cars. The priority trains often had plenty of power up front and traveled through the area at 60 to 70 mph.

Of course, there were also regular manifest and unit grain trains. Amtrak's *Southwest Chief* was still running this route in 1995. Local trains took care of serving the various loose-car customers.

I re-create much of what I saw rail-fanning the full-size Santa Fe during regular operating sessions. Setting up for a session requires making sure that all trains in staging have been accounted for and have been positioned in the order that they'll come onto the layout.

Paperwork includes providing a lineup of trains for the dispatcher to refer



6 Though still dressed in Santa Fe's yellowbonnet paint, the MKM under the road number on SDF45 No. 5987 indicates that the six-axle unit is now owned by Morrison-Knudsen. The cowl-body lease locomotive is bringing an auto train past the grain elevator in Mazon, Ill.

to when calling crews and getting trains started. I use switch lists created by JMRI Panel Pro operations software. The dispatcher has a schematic of the layout that he or she uses to manage crossovers on the main line.

My DCC-controlled layout features a 5-amp NCE wireless PH Pro radio system with two 5-amp boosters at the opposite end of the layout. All mainline turnouts are managed with NCE Switch-It or Switch-8 stationary decoders. A repeater antenna is mounted at the opposite end of the layout.

A serial cable running from the NCE command station to my computer lets me operate all mainline turnouts with JMRI Panel Pro. Operators assigned to local trains use push buttons on the fascia to control industrial turnouts off the main.

For train detection, I turned to RR-CirKits LocoBuffer-USB along with Team Digital block detection boards. Team Digital signal head drivers connected to BLMA signal heads are managed by the JMRI Panel Pro software. These upgrades allow the dispatcher to follow train movements.

The dispatcher communicates with train crews by two-way radios. He or she also gives crews the authority to occupy designated sections of the railroad to do their work and avoid conflicts with other train movements.

During operating sessions approximately 20 trains are moved from staging. These include high-priority intermodal trains, manifest freights, a couple of auto trains, Amtrak's *Southwest Chief* (east- and westbound), and occasionally a work train.

Also mixed in to the operating scheme are local trains that move cars from outside the bounds of the layout to locations on the model railroad and beyond. The local trains move commodities such as plastic granules from Dow Plastics to the plastic bottle plant in Streator. Manufactured bottles are then moved to the canning factory in Verona. Sidings in Streator and Joliet are used to facilitate east and west movements within the setting of the layout.



7 Santa Fe isn't the only show in town on Tom's model railroad. At Stepan Chemical in Joliet, Ill., a crew member aboard Indiana Harbor Belt transfer caboose No. 4 gives hand signals to the engineer in EMD SW7 No. 8879.

A rewarding journey

My HO scale Eastern Illinois Santa Fe layout not only gives me the chance to run trains, but it gives me the opportunity to share the hobby with others during operating sessions and open houses. I'm eternally grateful for the assistance of friends who helped in the planning and construction of the layout and the opportunities to spend time with them enjoying model trains.

But the story doesn't end here. To learn more about my layout, see additional photos, and much more, visit atsf93.com. MR



8 The engineer of P42DC No. 13 gives a couple of short blasts on the horn to acknowledge the farm family greeting the passing *Southwest Chief*. Tom's operating scheme includes east- and westbound versions of the Amtrak train.



9 There's a lot to look at in this photo at Joliet, Ill. In the foreground, an arborist uses a bucket truck to take a closer look at a tree. In the background, two Santa Fe freights pound the diamonds in front of Joliet Union Station.



10 An A-B-B-A set of Electro-Motive Division GP60s brings an intermodal train past the depot in Coal City. The train features a mix of containers and semi trailers.



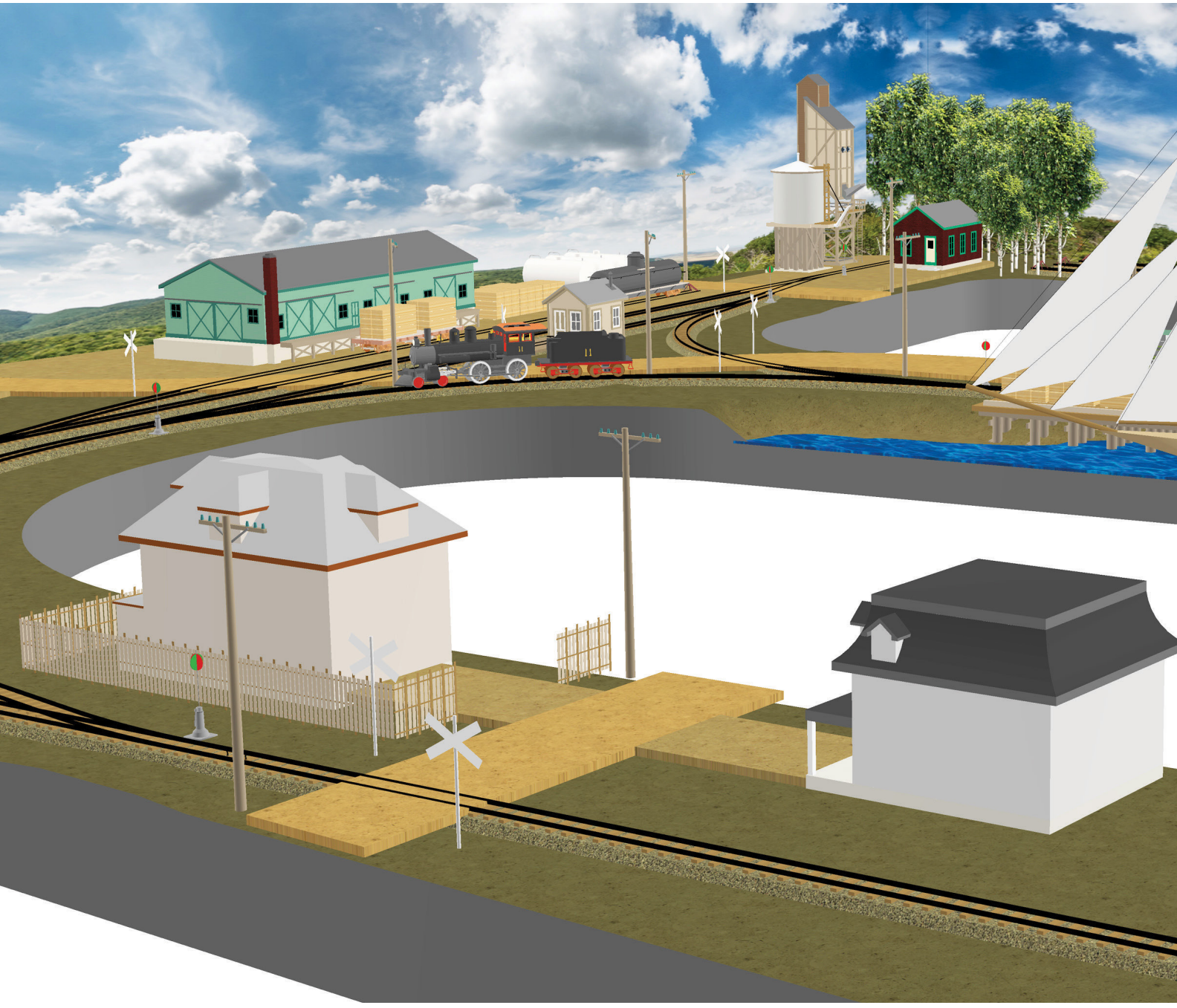
Meet Tom Cain

Tom Cain worked for 40 years as a caseworker at an agency serving children and adults with intellectual disabilities. He and his wife, Loveta, are involved with local family and are active in their home church. Tom is a member of the Central Indiana Division of the National Model Railroad Association and is a Master Model Railroader.

Ask why, not how

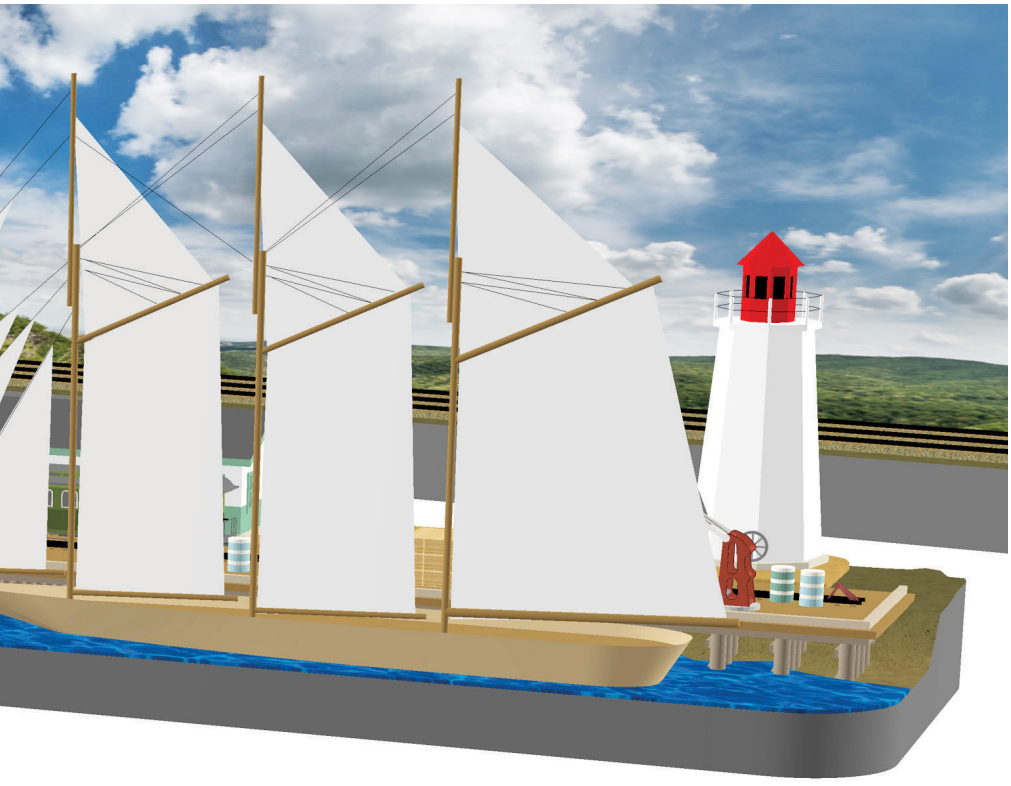
Consider the purpose of the railroad you're modeling

By Rob Chant • Illustrations by the author

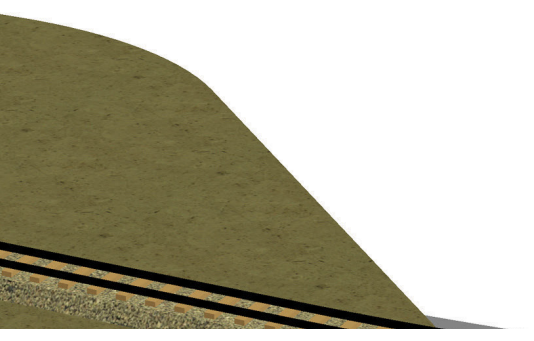


We are all faced with hundreds of choices when designing a layout, some simple, some not so much. As many of us probably already know, it can be very strenuous for a newbie (or even an oldie) to make decisions for their next layout project.

What do you do? Buy self-help books, of course — they will have all the answers you seek, right? So you go online with credit card in hand and order "How to Design a Layout," "How to Build Benchwork," "How to Wire a Layout," "How to Paint a Backdrop," "How to Add Scenery," "How to Build Structures," "How to Operate a Layout like the Prototype" ... you get the idea. Hundreds and hundreds of self-help books, each one tailored to make your next layout the best choice by telling us "how" to do things.



Rob Chant has always had an avid interest in the Maine 2-footers. One of the most appealing prototype scenes is the waterfront in Wiscasset, Maine, on the Wiscasset, Waterville & Farmington RR. Photos of the wharves with schooners in the harbor left a long-lasting impression that he wanted to duplicate on the On30 Sydney & Louisburg Coal & Railway Co. Computer graphics by Rob Chant



Exactly what we need, right? Maybe, maybe not.

If you look at the title of most self-help books, the word "how" will most likely prominently appear. Everyone wants to tell us how to do something and guide us step-by-step through a sure-fire process that will transform a pile of lumber and sections of track into a complete and fully functional model railroad. All great stuff to know, of course, and all subjects you will eventually need to learn if you want to get there from here.

But the one thing that is almost always missing is the "Why?"

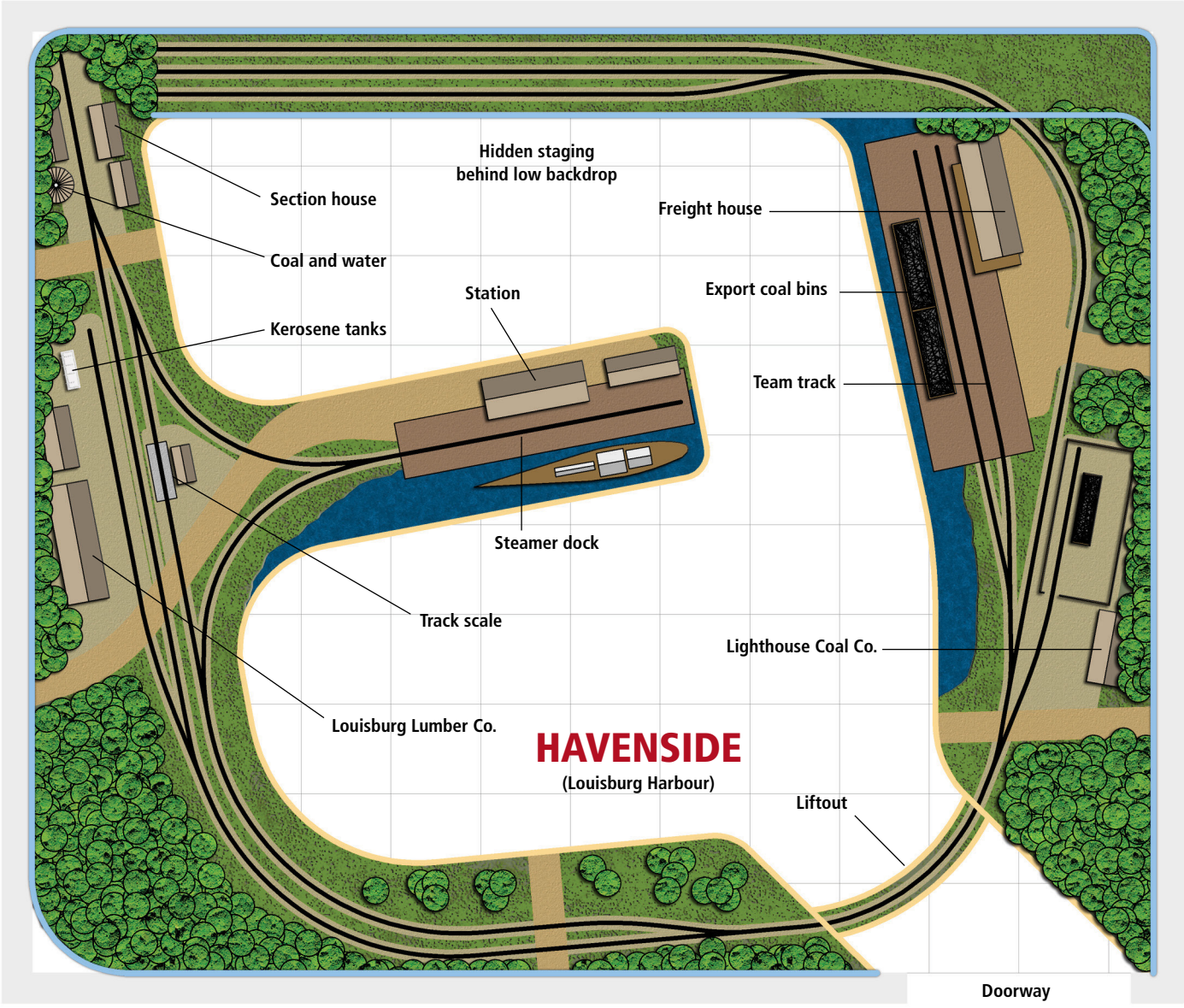
My approach to model railroad design, something I've been doing for friends and clients for almost 30 years, is guided by intent, restraint, and believability. I believe a successful layout is not defined by how much track or how many scenes it contains, but by how clearly it expresses a purpose. Every design choice should serve the experience the railroad is meant to deliver, whether that experience is operational, visual, or narrative.

I favor selective compression over excess, and authenticity over rigid accuracy, which means a layout should feel right even in the design phase. What's left out is often more important than what's included, and discipline in design is what allows a railroad to operate with a purpose and longevity.

Above all, I design layouts to be used, not just viewed. Anyone building a model railroad should be rewarded with time spent running it. The layout should also reveal new depth with repeated operation, and remain flexible enough to evolve without losing its identity. If the model railroad tells a believable, coherent story and continues to engage its owner over time, then I feel the design has succeeded.

Here are some philosophical questions that tend to separate satisfying layouts from ones that never quite feel "right" for the owner:

Spectacle or participation: What are you actually trying to experience? Do you want to watch trains run, or do you want to run a railroad? Is the layout meant to relax you visually or engage you mentally? When you imagine your finished layout, are you standing back or holding a throttle and a switch list? This question influences everything:



The layout at a glance

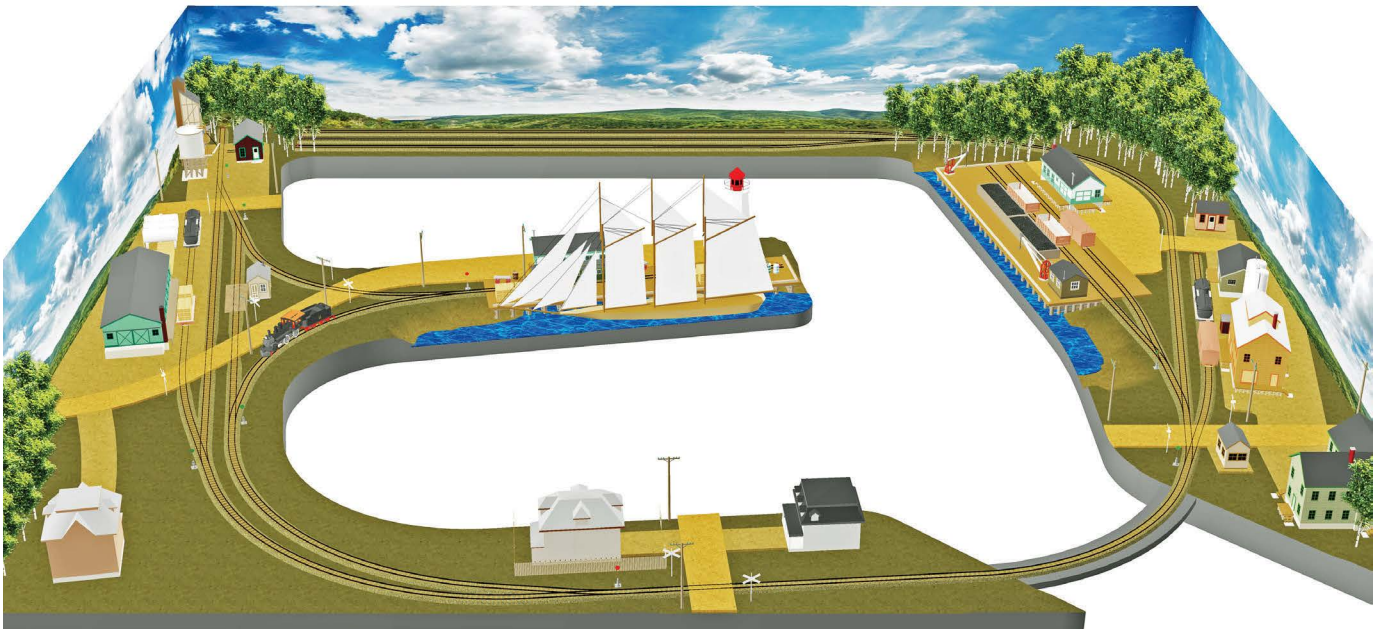
Name: Sydney & Louisburg Coal & Ry. Co.
Scale: On30
Size: 10'-6" x 12'-6"
Locale: Cape Breton Island, Nova Scotia
Era: August 1916
Style: walk-in
Minimum radius: 34" (main), 24" (wye)
Minimum turnout: No. 5 (main), No. 4 (wye)
Maximum grade: none
Track: Micro Engineering code 83
Control: Digitrax DCC
CAD software: 3rd PlanIt by El Dorado Software

track complexity, scenery density, operating scheme, continuous-run options, even how wide your aisles are.

Curation vs. simulation: Are you modeling railroading — or collecting it? Is this layout a place to justify owning everything you love? Or is it a selective representation of a believable railway system? There's no wrong answer, but confusion here creates cluttered layouts. Many modelers struggle because they never admit whether the layout exists to serve the story, or to serve the collection. Clarity here prevents the "I just need one more industry" spiral.

Accuracy vs. authenticity: What level of realism actually serves your enjoyment? Do you need things to be technically correct or emotionally convincing? Are you chasing prototype perfection or the feeling of railroading? A layout can be wildly enjoyable while being technically "wrong," and absolutely miserable while being flawlessly accurate. The philosophical challenge is knowing where realism stops being enriching and starts holding you back.

The discipline of omission: What are you willing to leave out? Perhaps surprisingly, every layout is defined more by what is excluded than what is included. How much geographic compression can you tolerate? How many industries are enough? What signature elements must exist, and what can be implied? This is where many layouts fail because of the



This overall view of the layout shows the steamer dock in the center with the export coal bins to the right. Staging, at the top of the image, will be hidden behind a low backdrop.

inability to say "No!" A great design is an argument, not an encyclopedia.

Longevity vs. novelty: Is this layout for today, or for who you will be in 10 years? Will this still interest you once the novelty wears off? Does it rely on constant building, or does it reward operation over time? Can it evolve without being torn apart? Answering this question forces honesty about patience, attention spans, and long-term engagement, which are especially important for large or permanent layouts.

Solitary meditation or shared experience: Who is this layout for? Is this a personal sanctuary? A social operating layout? A teaching tool? A public display? Designing for guests versus designing for yourself leads to very different decisions in aisle width, visibility, complexity, and durability.

Narrative vs. diorama: Are you building a railroad? Or a scene from a railroad? Is the layout telling a story over time? Or is it a series of perfect moments frozen in space-time? Narrative layouts emphasize flow, cause-and-effect, and operations. Scene-driven layouts emphasize composition, sightlines, and emotional impact. Most layouts attempt both, but one should lead.

Completion vs. continuity: What is "finished?" Is a finished layout one that stops changing? Or one that keeps offering new experiences? Some modelers subconsciously sabotage layouts because completion feels like an ending. Recognizing this helps avoid endless rebuilds that are disguised as "improvements."

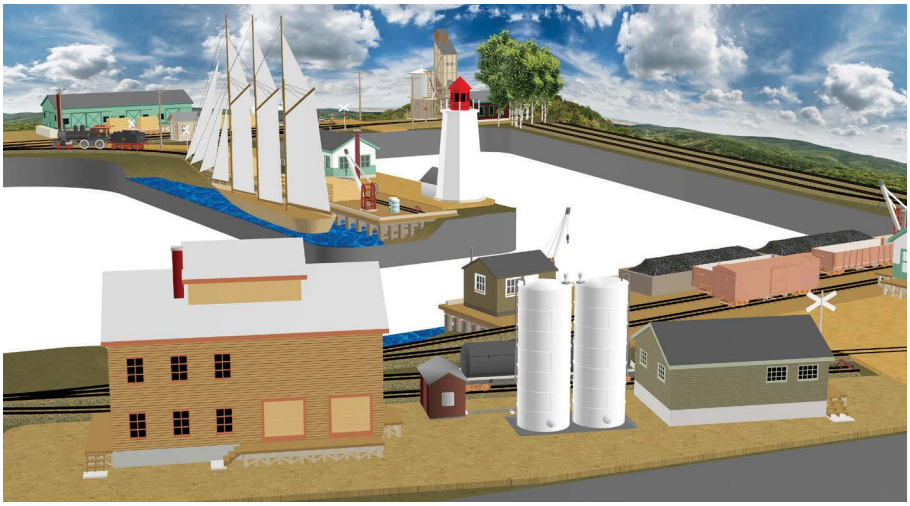


The export coal bins are the main feature of the waterfront trackage beyond the liftout at the entry door. Rob didn't have room for the massive coal docks on the prototype, but he will be able to get a sense of that space on his layout.

Identity: What kind of model railroader are you — really? Builder, operator, storyteller, technician, artist, historian? Or some uncomfortable mix you've never fully admitted? The deepest design failures often come from building a layout for the railroader you think you should be, not the one you actually are.

Defining moments

I've been asked many times what I feel is the most important element of good layout design. The very simple answer to that question is knowing what you're most passionate about when it comes to model railroading and using that as the basis of your next modeling project. I'm sure that most of us can look back on at least one "defining moment" when something piqued our interest or sparked our curiosity enough that we decided to look more deeply into the hobby.



Digital 3-dimensional modeling lets Rob get an idea of what the layout will look like before it's built.

The first defining moment for me came way back in the early 1970s after I found my grandfather's August 1969 issue of *Model Railroader*. Within the pages of that issue there was a piece written by former *Narrow Gauge & Short Line Gazette* editor Robert W. Brown titled "Finer than fine scale." His article discussed building an O scale diorama in 2-foot narrow gauge based on the Wiscasset, Waterville & Farmington RR (WW&F).

Bob's 30" x 20-foot layout depicted the WW&F at Wiscasset, Maine, and it became the catalyst for my lifelong interest in both Maine 2-footers and waterfront scenes. It was also the reason why I started planning an On30 layout based on the laid-back operations of these Lilliput lines, and on the waterfront scene at Wiscasset. In 2017 I came up with the design for the Sydney & Louisburg Coal & Ry. Co. (SLCRCo.) presented here to fit in a 10 x 12-foot spare room.

The SLCRCo. was envisioned as my retirement project, although the planning process had actually begun back in 2014 with the assistance of members from the former Railroad Line Forums. At that time, the caliber of On30 modeling and craftsmanship being shared on those forums was truly exceptional and further fueled my interest in developing an On30 layout of my own.

The layout is loosely based on the 36" gauge Sydney & Louisburg Coal & Ry. Co. It operated from the late 1870s to the early 1890s near my hometown on Cape Breton Island. The SLCRCo. eventually become part of the standard-gauge Sydney & Louisburg Ry. in 1894. My original concept was a triple-deck design intended for my dining room and featured a train elevator to move short trains between levels.

By 2017, however, I decided to simplify the design by reducing the amount of track, arranging the railroad in a more prototypical manner, and converting it into a single-deck layout that eliminated the need for using an elevator system to move trains. As a result, it was back to the drawing board to refine and streamline the original concept.

Over the years, it was always the photographs of weathered wharves and schooners in harbors served by the Maine 2-footers that left the strongest impression on me. I wanted those waterfront scenes to become the visual centerpiece of the new design, complete with a few small schooners along the docks. The layout ultimately evolved to feature two waterfront scenes within the dockside hamlet of Havenside on Louisburg Harbour, where coal is exported and lumber imported.

Although I have purchased several Forney locomotives for motive power, I eventually want to scratchbuild the double-ended Fairlie Patent locomotives used by the prototype railway. Built by Avonside of Bristol during the early 1870s, these compact locomotives featured twin boilers with a centrally mounted cab, allowing them to operate equally well in either direction. Despite their modest appearance, an engineer who evaluated the railway shortly after its construction reportedly described the locomotives as being more powerful than the railway's operational demands required.

Naturally, I took a number of liberties with the design to tailor the layout to my own interests, including the addition of considerably more freight traffic beyond coal alone. Given the limitations of available space, there was simply no practical way to model the enormous coal export piers or the many online coal mines served by the railway. And preserving the atmosphere and character of the Maine 2-footers — particularly their waterfront operations — remained my primary goal throughout the design process.

Although the project has not been abandoned, progress on the layout has been on hold for the past several years. Since 2019, demand for my layout design services has increased substantially, and most of my hobby time has been devoted to designing layouts for others while sharing my work online through my blog and Facebook page.

Asking why

Before you cut your first piece of wood or read your first how-to book, ask yourself the simple question, "Why do I want to have a model railroad?" That answer is what should guide you forward. The "why" is the emotions that model railroading stirs in you, and those emotions are much more important than the "how" to do something ever will be. Anyone can learn the basic how-to aspects of layout building, but to master the why is a very personal thing, and it will no doubt be different for every modeler.

At its heart, layout design asks these questions: Why do I want to build a model railroad? And how do I compress a complex reality into a small space without losing its soul? Every track plan is a philosophical compromise, and the best ones are honest about which compromises they are making — and why.

Rob Chant is a retired Canadian letter carrier with a background in computer programming, graphic design, writing, and photography. He has spent the last 30 years helping model railroaders design their dream layouts and shares that journey on his personal blog (jomrd.com) and on his private Facebook group, both titled "The Journal of Model Railroad Design."



märklin

LGB

Create Holiday Traditions with Märklin and LGB

Festive, holiday-inspired model trains create family memories that last a lifetime

LGB G Scale (1:22.5)





72308 Christmas Train Starter Set*



36026
2026 Annual G Christmas Car



24681
Christmas Rail Truck



23132
Christmas "Chloe" Steam Locomotive

märklin Z Scale (1:220)



81846
Christmas Train Starter Set*





80636
2026 Annual Z Christmas Car

märklin H0 Scale (1:87)





29124 Christmas Train Starter Set* (No Headlight)



44224
Märklin Start up Christmas Car
with Sound



44126
Christmas Car
with Light Module



48426
2026 Annual H0 Christmas Car

**120V Electric, ready-to-run starter sets include everything needed to run the train out of the box.*

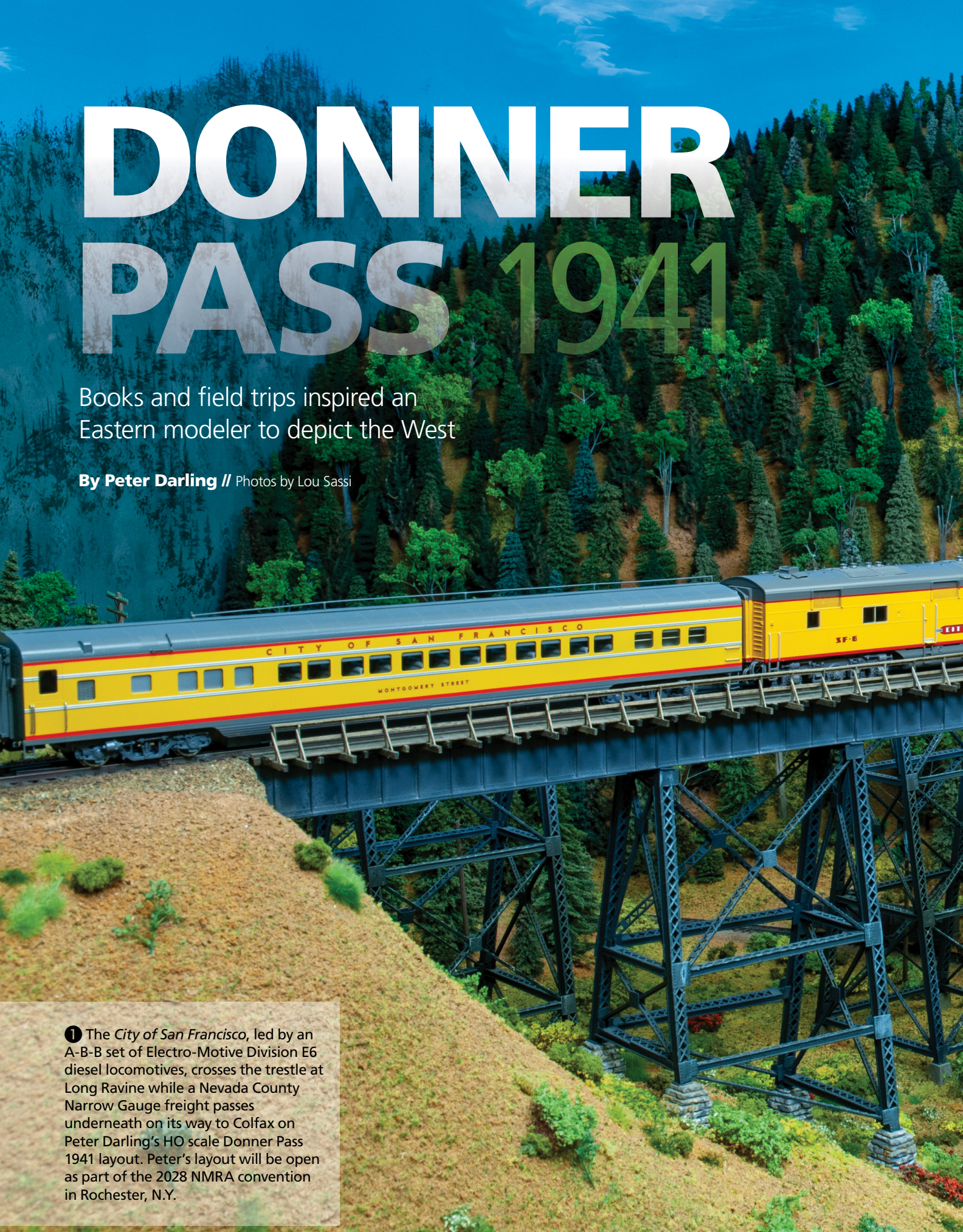
Photos not to scale. For a FREE New Items Catalog and to find a dealer near you, email customerservice@marklin.com. Visit LGB.com and Marklin.com to see our complete line of products.

marklin.com / LGB.com
customerservice@marklin.com

DONNER PASS 1941

Books and field trips inspired an Eastern modeler to depict the West

By Peter Darling // Photos by Lou Sassi



❶ The *City of San Francisco*, led by an A-B-B set of Electro-Motive Division E6 diesel locomotives, crosses the trestle at Long Ravine while a Nevada County Narrow Gauge freight passes underneath on its way to Colfax on Peter Darling's HO scale Donner Pass 1941 layout. Peter's layout will be open as part of the 2028 NMRA convention in Rochester, N.Y.


CITY OF SAN FRANCISCO
SF-6
SF-5
CITY OF SAN FRANCISCO
SF-5
SF-4
CITY OF SAN FRANCISCO
SF-4



❷ The view from the bottom of the stairs has the yard and wye at Colfax to the left, Truckee to the right, and Butte Cañon at center. Note the duck-under that leads to the next aisle.

Growing up in Quincy, Mass., where I graduated from high school, my father would take me into Boston, and from the causeway that traversed the rail yard we would watch the *Yankee Clipper* passenger train depart South Station.

When I was 8 years old, I received an American Flyer train set. It included a die-cast metal Pennsylvania RR K4 Pacific with a set of passenger cars. This turned into a first layout consisting of a loop of track and two sidings on 4 x 8-foot and 4 x 6-foot sheets of plywood mounted side-by-side. Coffee grounds served as ballast, and green-dyed sawdust represented grass. These activities cemented an interest that has lasted a lifetime.

I've since built a small traction and a logging layout, neither of which had much scenery. The rigors of military and family life didn't leave much time for a hobby. When I retired, I said I'd build my dream layout. So here it is.



❸ Train 102, the *City of San Francisco*, emerges from Tunnel 41 heading east as a freight led by a Southern Pacific class AC-6 Cab-Forward heads west over the original line. This line was part of the section that connected the country from east to west back in the 1860s. The AC-6 is an MTH Electric Trains model.

Why Southern Pacific?

I occasionally get asked why a person from the East models a railroad in the West. I've always loved mountain scenery and steam locomotives. Years ago, I watched the Video Rails tape *Southern Pacific 1941* and I was hooked on building a model of the area. My wife and I made two trips to Donner Pass, following the route of the railroad, when we were in California at NMRA conventions.

My primary sources of information came from two books: *Donner Pass: Southern Pacific's Sierra Crossing* by John R. Signor, and *Nevada County Narrow Gauge* by Gerald M. Best.

My HO scale model railroad is based on the Southern Pacific's Sacramento Division, which ran from Sacramento, Calif., (Roseville) to Reno, Nev., (Sparks). The scenic portion of the line I model is from Colfax to Truckee, Calif. The layout fills a 29'-6" x 56'-0" portion of my basement and consists of 330 feet of double-track main line with a 50-foot section of single-track, 3-foot narrow gauge.

Eastbound staging represents Roseville yard and Westbound staging represents Sparks yard. Each staging yard has nine tracks with a runaround that automatically restages trains and allows for continuous running for open houses and track cleaning. The 3-foot gauge Nevada County Narrow Gauge (NCNG) ran from Colfax to Nevada

The layout at a glance

Name: Donner Pass 1941
Scale: HO (1:87.1)
Size: 29'-6" x 56'-0"
Prototype: Southern Pacific
Locale: Sacramento, Calif., to Reno, Nev., over Donner Pass
Era: 1941
Style: walk-in
Mainline run: 330 feet (double track)
Minimum radius: 40" (main line), 36" (staging)
Minimum turnouts: No. 8 (main line), No. 6 (sidings)
Maximum grade: 1.5%
Benchwork: L-girder
Height: 49" to 61"
Roadbed: cork
Track: Micro Engineering flextrack (code 83 on main line; code 70 on sidings); Atlas code 83 in staging.
Scenery: plaster cloth over cardboard strips or extruded-foam insulation board covered with plaster cloth, ground goop, dirt, handmade and manufactured trees
Backdrop: hand-painted drywall
Control: NCE DCC Power Pro

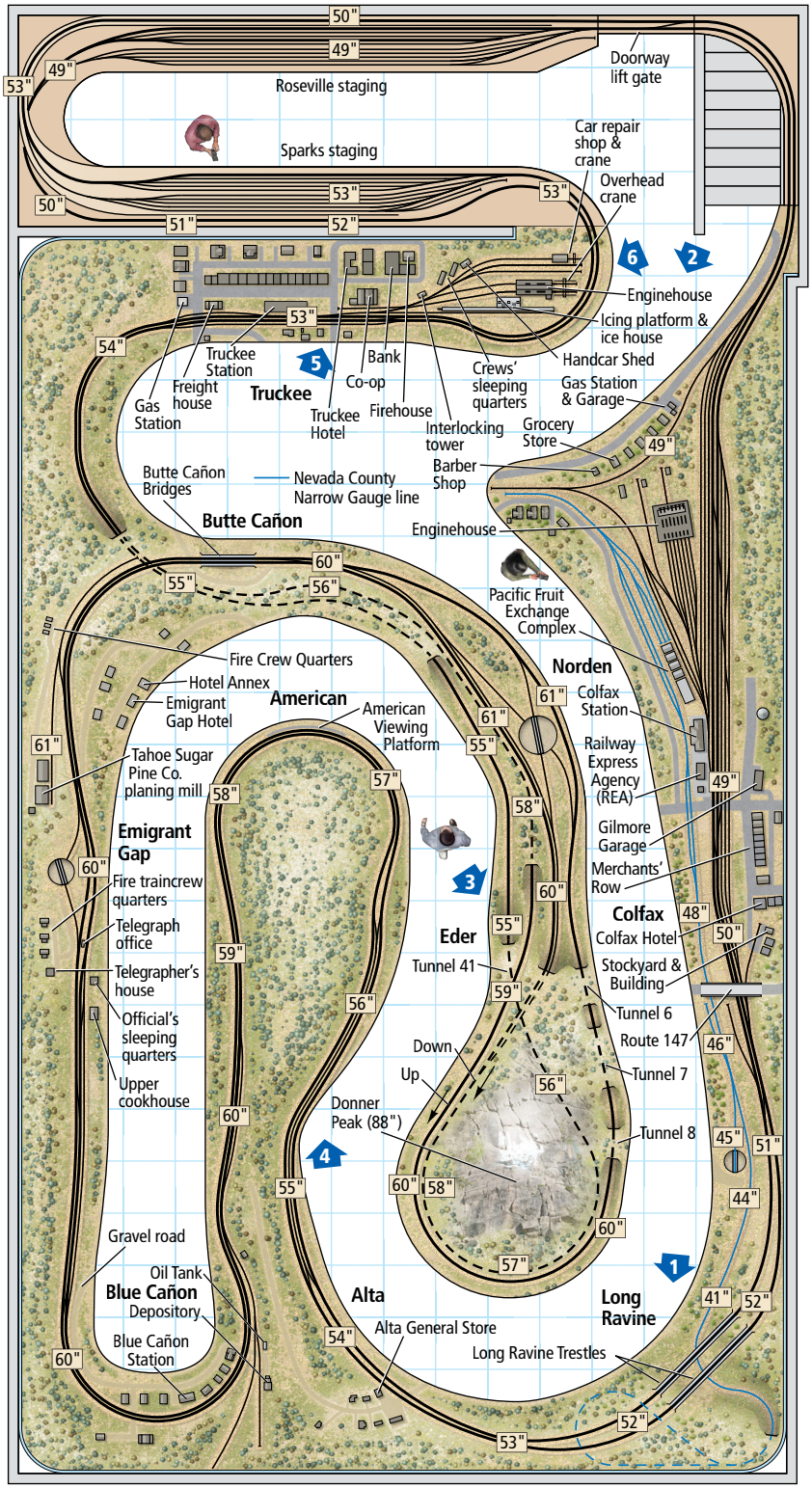
City, Calif., which is represented by a hidden reverse loop that also acts as staging. The layout is complete with the exception of 10% of the scenery.

The modeled locations are: the NCNG, Colfax, Long Ravine, Alta, American, Blue Cañon, Emigrant Gap, Norden, Butte Cañon, Eder, and Truckee. Except for Truckee, all the trackwork is modeled similar to the real places (although compressed) as it was in 1941.

Layout construction

Before starting the layout, the basement walls were finished. I then tiled the floor and installed a suspended ceiling and fluorescent lights. The layout is constructed using L-girders made from 1 x 3 boards for the web and 1 x 2 for the flange. The joists are 1 x 3.

The layout sections that are against the wall are supported with cantilevered assemblies so that there are no legs to get kicked. The two peninsulas (blobs) are supported by 2 x 2 legs with adjusters on the bottom for leveling. These are set back from the edge. The risers are 1 x 3 posts with 1 x 2 cross Ts. The subroadbed is ¾" cabinet-grade plywood. The roadbed is cork from Midwest Products. The cork is fastened with DAP Dynaflex 230 sealant.



Tortoise by Circuitron switch motors power all 104 main line and narrow gauge turnouts. All the switch motors are controlled by NCE Switch-IT stationary decoders. This way, they can all be operated from the cab bus and individual walkaround throttles. With the exception of the turnouts, all track was secured to the painted cork with DAP Dynaflex 230.

Donner Pass 1941

HO scale (1:87.1)
Room size: 56' x 29'-6"
Scale of plan: 9/64" = 1'-0", 24" grid
Numbered arrows indicate photo locations
Illustration by Kellie Jaeger

Find more plans online in the Trains.com Track Plan Database.



❹ Miles before Colfax an MT-5 Mountain leads a freight train west after leaving the town of Blue Cañon. This area tends to collect very deep snows in the winter, giving the rotary snowplows lots of work. The MT-5 is a brass import from Westside Model Co.

Electrical

The layout is controlled by an NCE Digital Command Control (DCC) Power Pro system. There are two main power districts controlled by a command station and a booster; each powering one half of the layout. There are 12 sub-powered districts: two for staging, one for Colfax yard, six for the main lines, one for the NCNG, and two that power the turnouts.

Scenery design

The scenery base is either extruded-foam insulation board covered with one layer of plaster cloth, or cardboard strips covered with two layers of plaster cloth. Each are then painted with earth colored latex paint. Trees and ground cover are applied using techniques described in the four-part series "Trees are models too" in the May, July, September, and November 1995 issues of *Model Railroader.*

Modifying evergreen trees

Trees are an important part of my scenery. My layout has approximately 2,500 deciduous trees and 14,000 evergreen trees. Since I model the Sierra Nevada there is a preponderance of evergreen trees. I made all the deciduous trees, and about 1,000 of the evergreen trees. The remainder came from Busch, Grand Central, Gems, Heki, and Noch. A number of the trees require modifications to make them look more realistic.



From left is a stock tree, trimmed tree, and finished tree with foam applied along with hair spray on left, scissors at bottom, and foam on right.

I first trim off what I call the "skirt" so they don't look like Christmas trees. I then take scissors and randomly thin out the branches to give them a variegated look. Next, I spray the trees with hair spray, apply fine ground foam, and then respray them. This gives the tree a fuller look.

I use a color of ground foam that's close to the color of the tree. In this example, I used Scenic Express Fine Hazy Green on Busch pine trees. Since I use trees from different manufacturers, they are all colored a little differently. I like to have a variety of different colors and trees as it gives the forest a blended look. I usually do each step described above in lots of 50 for efficiency.

— Peter Darling



5 An AC-6 Cab-Forward thunders through Truckee on its way west over "the hill." The white hotel in the background, built in the 1800s, had many names and several fires over the years. Today it has been restored and is the Truckee Hotel. Scott Baroody scratchbuilt the hotel from photographs. The AC-6 is a MTH model.



6 A gondola is being evaluated at the repair facility at Truckee while a locomotive is being worked on in the right bay. There's always something on the railroad that needs repair. The overhead crane is used for heavy loads when necessary.

My article "Finishing the Forest Scene" describes a process using a goop mixture to apply the scenery materials. My modified goop formula is 1 cup Celluclay, 1 cup vermiculite, ½ cup white glue, and ½ cup latex paint; add about 1 cup of water and mix to the consistency of oatmeal.

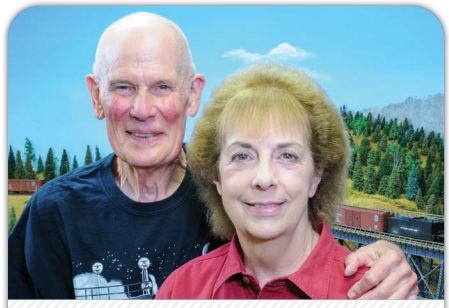
The goop covering is followed by dirt, ground foam, leaves (if applicable), sticks, rocks, then the trees. Everything bonds to the goop. My scenery materials are a mix of natural items and commercial offerings from Scenic Express and Woodland Scenics. The trees on the layout are a combination of homemade and purchased from Heki, Noch, Busch, and Grand Central Gems. I made around 2,500 deciduous trees from pepper grass, meadow sweet, and wild oregano.

I built about 1,000 evergreen trees using bamboo skewers, buffing pad material, and various fine ground foams. Learn how I improve commercial trees in "Modifying evergreen trees," opposite.

I painted the backdrop directly on the walls with several shades of blue. My wife surprised me with a Father's Day gift and commissioned her painting instructor, Barbara Jackson, to paint all the clouds, hills, and background trees for me. As you can probably tell, scenery is my favorite area of layout constructions!

Structure variety

The structures on the layout are a combination of kit built, ready built, kit-bashed, and scratchbuilt. Many of the scratchbuilt structures are based on photographs I took and pictures in books. They include the enginehouse in Colfax, the bridges at Long Ravine and Butte Cañon, the viewing platform at American, and Pacific Fruit Exchange. The Colfax Station, constructed by Richard Cobb, is a birthday gift from my wife. The hotel in Truckee was built by Scott Baroody.



Meet Peter Darling

Peter Darling is a retired U.S. Navy Commander with 32 years of service. He is a member of the NMRA, the Southern Pacific Historical & Technical Society, and past Chief Engineer of the Rochester Model Railroad Club.

He and his wife, Lisa, have been married for 29 years and live in Chili (near Rochester), N.Y. They enjoy hiking, canoeing, camping, attending craft and train shows, and traveling. Peter also enjoys hunting and competitive shooting.

Peter has three adult children from a previous marriage; a son and two daughters; and three grandchildren. This is Peter's second article for *Model Railroader*.

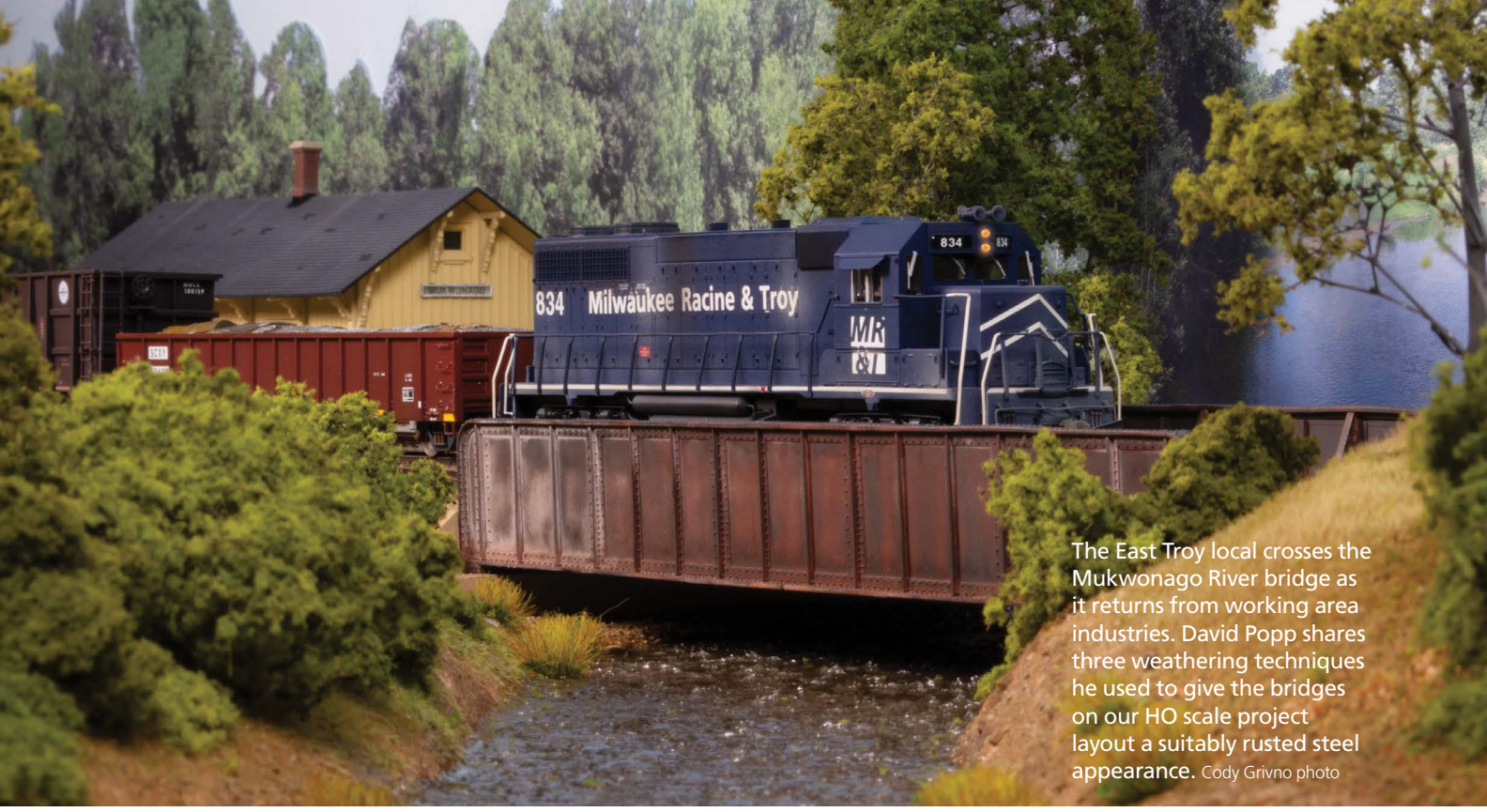
Locomotives and rolling stock

All locomotives and rolling stock are era-specific — 1941 vintage or earlier. The locomotives are primarily steam. The only era-specific diesels are the Electro-Motive Division E6 A-B-B units that pull the *City of San Francisco*, which was delivered in July 1941. All rolling stock is weathered.

Running trains

We have a small round-robin group consisting of Scott Baroody, Eric Johnson, Mark Rossiter, and myself. We meet once a month to work on individual projects, share hobby ideas, and socialize. We have done some mini practice operations and are working toward a complete operating session. Time will tell.

Additionally, I would like to give a special thank you to my wife, Lisa, for all her support and help during this project. MR



The East Troy local crosses the Mukwonago River bridge as it returns from working area industries. David Popp shares three weathering techniques he used to give the bridges on our HO scale project layout a suitably rusted steel appearance. Cody Grivno photo

3 EASY BRIDGE WEATHERING TIPS

Using readily available products to make realistically rusty steel structures

By David Popp • Photos by the MR staff

One thing all railroads have in common is rust. Steel just loves to oxidize, and even if it's painted, the tortuous environment of railroading ultimately takes its toll on that protective coating. Sooner or later the paint fades, cracks, blisters, and then rusts. How do you capture that look on a layout?

When building and installing the bridges on our East Troy Industrial Park HO scale project railroad, I worked from photos of two prototype bridges on the Canadian National that would be modeled on the layout. Although the bridges were within a football field of each other, they weathered uniquely, so I decided to try different techniques for each. For the project, I turned to easy-to-use paints and washes found at brick-and-mortar and online hobby shops.



One of the products David used to weather the bridges is this weathering assortment of acrylic paints from Acrylicos Vallejo, set 71.194. The paints are designed to be used with a brush or an airbrush.

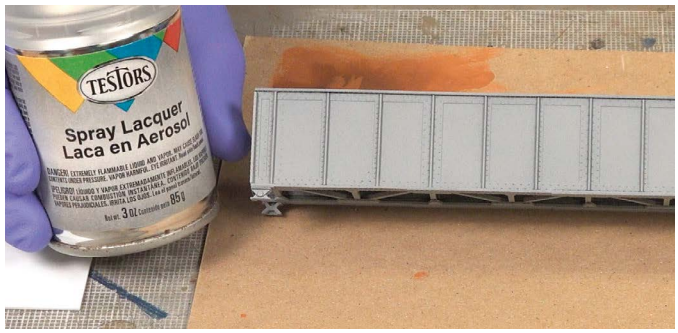


Monroe Models offers an assortment of weathering washes, consisting of powdered pastels suspended in isopropyl alcohol. For this project, David used New Fresh Rust, Real Rust, and Dark Rust, along with Quick Age.

Technique 1: Weathering with pastel washes

Weathering washes have been around for a long time. While most use ink or dyes, a more recent development has been the use of powdered pastels suspended in isopropyl alcohol. To use the Monroe Models pastel washes, simply shake the bottle, then flow or dot the material onto the work surface with a paintbrush. The powder will continually try to settle to the bottom of the bottle, so you need to periodically cap it and shake it up again while working. It's easy to use, and once the alcohol evaporates, the powdered pastel remains on the surface, settling in nicely around raised details, such as rivets and exterior posts. This is a messy technique, so it's best to do this project before adding the track on the bridge or installing it on the layout.

STEP 1 Coat the model with lacquer



To prepare the bridge for weathering it needs to be painted a base color. The bridge shown here was painted with Tamyia 87042 gray surface primer. The pastels will hold to the paint better if it is coated with Testor's matte spray lacquer.

STEP 2 Darken the centers



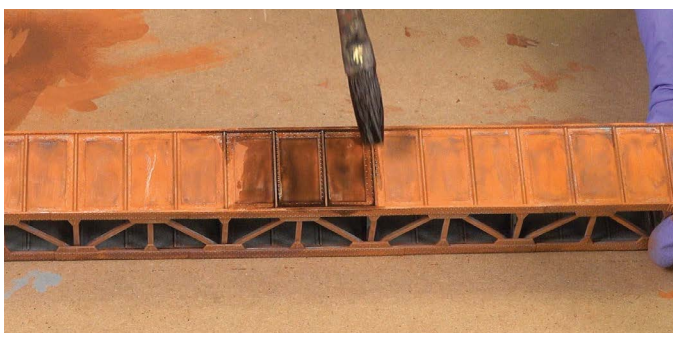
Rust patches tend to be brighter at the edges but darker in the center. Looking at the photos of the bridge over the Mukwonago River, the centers of the panels were darker than their edges. Starting with the Dark Rust weathering solution, I used a wide brush to apply it to the center of each panel. I let the alcohol evaporate, then applied a second coat before rotating the bridge to do the other sides.

STEP 3 Light rust on the edges



Once the Dark Rust had dried, I applied a coat of the New Fresh Rust solution. First, I rimmed each panel, preserving as much Dark Rust as I could. After that had dried, as shown in the photo, I applied a second coat of New Fresh Rust, this time over the entire bridge, which blended the dark and the light rust together. You could also do the second application with Real Rust instead to produce a darker overall rust effect.

STEP 4 Quick Age control coat



Next, I applied a control coat of Quick Age solution. Quick Age is an oily black powdered pastel, that when applied over the entire model, tones down the rust and serves to accent seams and raised details. I coated the entire bridge with this material, and then left the bridge sitting upright, allowing the material to flow downward, much like rain naturally washes dirt and grime down real structures.

STEP 5 Seal the pastels with lacquer



After the alcohol evaporated, the pastels were loose on the surface. To prevent them from coming off when the model was handled during installation, I sealed them with a coat of matte lacquer. The combination of Quick Age and lacquer toned the color of the rust down considerably. The result is a realistic rusty finish. And while there were a lot of steps, the materials dried quickly. The entire process took just 5 hours.

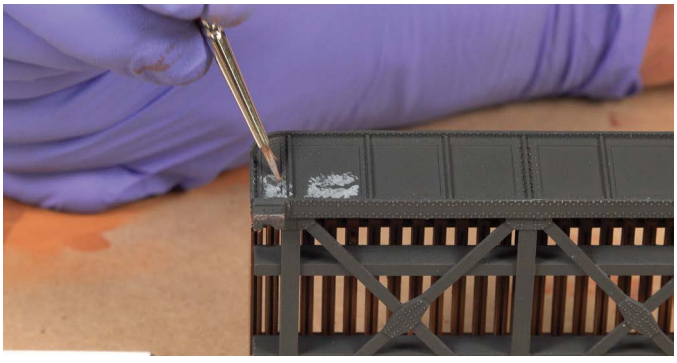
Technique 2: Acrylic rust blisters

Rust blisters are places where the paint has failed and cracked, allowing moisture to get to the steel beneath it. Once there, water starts the oxidation process, which forces the paint flakes loose, exposing more steel and allowing it to rust. This Canadian National bridge crosses a highway, and while it was better maintained than the river bridge, parts of it had blistering paint and rust. To achieve this effect, I used acrylic paints from Vallejo, applying them with small brushes to build up the rust effect. You can use this technique on any surface that represents painted metal.



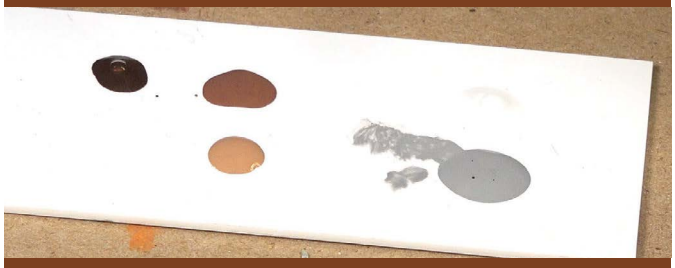
While better maintained, the paint on this railroad bridge is still failing, with excessive blistering occurring on the right half of the structure.

STEP 1 Failing paint



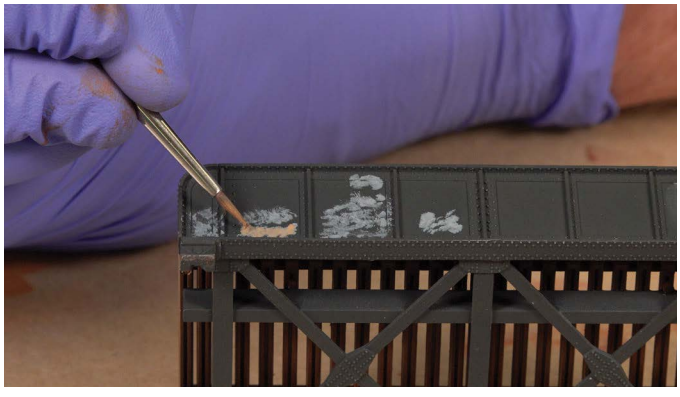
Before a rust blister occurs, the paint in that area begins to fail. The coating breaks down due to sunlight or excessive wear, and takes on a lighter color than the original paint. Therefore, rust blisters will have lighter colored edges than the surrounding paint. To model this on the bridge, I started by painting patches of Vallejo 71.050 Light Gray. Follow photos when possible to avoid predictable patterns.

A SIMPLE PAINTER'S PALETTE



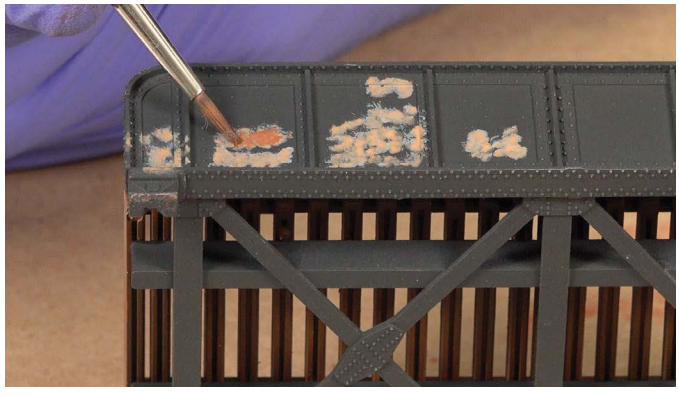
Part of this technique requires blending colors on the surface of the model while they are still wet. Modelers often use oil paints for creating rust blisters because of that material's long drying time. However, acrylic paints will work, as long as you apply the colors in rapid succession and work in small areas. To do this, I made a temporary painter's palette from a piece of .040" styrene, as shown here. You can reuse the palette with acrylics by wiping it clean with a wet paper towel.

STEP 2 Light tan or orange/brown



The first color I used for the rust blisters is Vallejo 71.079 Tan Earth. I wanted something slightly redder in color, such as an orange/brown, but I didn't have it on hand. This color is an undercoat for the other rust colors to follow, and it will only show through at the very edges. I applied it into the center of the gray patches, leaving just a sliver of the gray exposed at the edges. Use a fine tipped brush for all of these steps.

STEP 3 Bright rust



Next, I filled in the blisters' centers with a darker color, this time Vallejo 71.080 Rust. I stippled this layer over the Tan Earth, but did not try to cover it completely. Blisters are a mottled collection of colors, and applying the material in dots of varying sizes helps break up solid patches of paint. By applying the next color before the previous color has dried, you're able to blend them together for a realistic effect.

STEP 4 Dark rust



The final color I added to the blisters was Vallejo 71.036 Mahogany. This is a rich, pleasing red/brown color, and it approximates the look of darker, older rust well. The darkest rust will typically be in the center of the blister, so that is where I applied the most paint.

This is a very forgiving technique. As you work, if you find that you have places that are too much of one color or another, you can go back with a previous color and stipple it into the blister, blending the colors on the surface as you go. Also, not just the outside faces of a bridge rust; remember that the inside spaces and the top and bottom of the girders will also blister as they age.

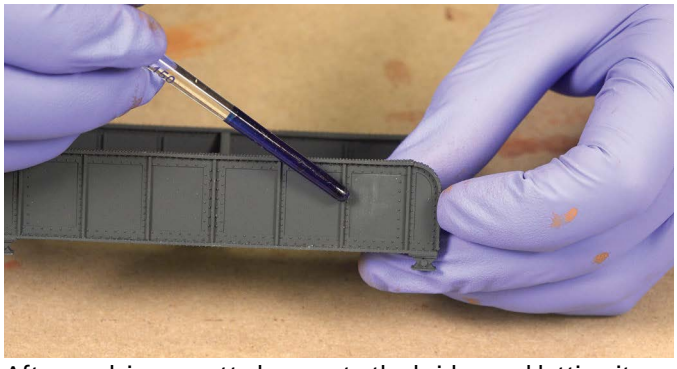
Once you are happy with the results, let the paint cure overnight before handling the model further.

Technique 3: Fading paint



While not rust, another weathering effect you can add to a painted bridge is fading paint. Paint fades for many reasons. The bridge shown here has fading paint on the left half of it, which might also have been graffiti that was painted over at some point. While you can simulate that with airbrush weathering, you can also use a hazing effect produced by applying isopropyl alcohol over lacquer.

STEP 1 Initial application



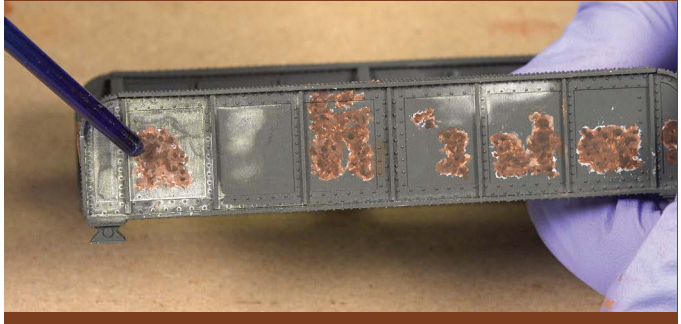
After applying a matte lacquer to the bridge and letting it dry, I used a wide paintbrush to apply a single layer of isopropyl alcohol to the surfaces I wanted to haze. Streaking the alcohol will look better than coating the surface fully. As shown here, the alcohol has already evaporated and the haze effect is just starting to show on the first full panel at the right end of the bridge.

STEP 2 Wait it out



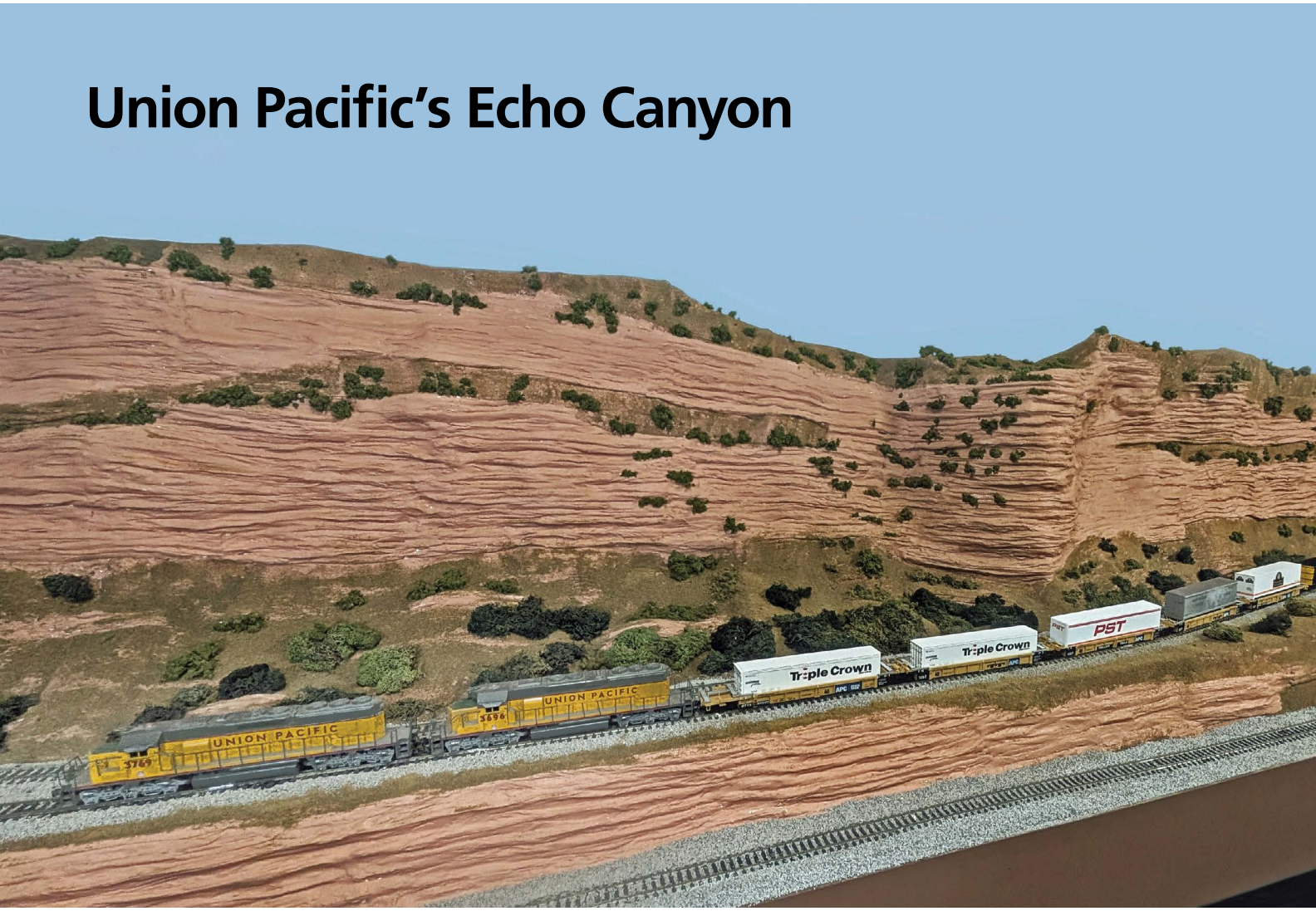
This technique takes a bit a patience, as you won't see it fade immediately, so avoid the temptation to quickly apply more alcohol. As shown here, after applying the lacquer and alcohol, I added paint blisters to the bridge, as shared in the previous technique. By the time I was finished with that project, the hazing had started to appear without needing any additional applications of alcohol. MR

TOO MUCH OF A GOOD THING



I'd used the opposite side of the same bridge as my initial test for some of these techniques. As shown on the left end of the bridge, I'd applied two coats of alcohol, which caused it to turn white. This is easily corrected by applying a new coat of lacquer, which will virtually erase the haze shown here. However, to my eye, it looked as though the bridge had been graffitied at one time, then hastily painted over, so I left it as it is.

Union Pacific's Echo Canyon



For more than 10 years, I'd been slowly building out my 10 x 20-foot HO scale model railroad, but not really getting very far. The benchwork and the yard were in, along with just a few feet of mainline track. I didn't yet have a theme or scene to model. My railroad of choice, however, has been Union Pacific for many, many years.

I've had the pleasure of railfanning with three wonderful friends for over 30 years. Each year we pick a state and a site, and we head out for three to four days. In 2018, our target was northern Utah. Weber and Echo Canyons were on the list, as was Salt Lake City. As usual, we had an amazing time together and enjoyed the locations and the photographs we came home with.

Fast forward 18 months and COVID appeared. I was self-employed, and — like so many other small business owners experienced — my work dried up. So what did I do? I made lemonade out of a bad situation.

I spent about three hours a day on average laying track and building scenery. The track plan allows for modeling both Weber and Echo Canyons. A little artistic license may have been taken, as the layout doesn't model the two sites in exact geographic relationship, but the way it has come together has been very satisfying.

The scenery in Echo Canyon is a particular point of pride. The canyon's rich colors and rock formations were a challenge to reproduce. Along the way, I developed a good technique for creating stratified rock using nothing but paper towels and plaster. The two photos were taken by me and show the prototype location and my HO scale depiction of the same scene.

The base of the scene was built using old-school hardshell scenery that I learned from my father in the late 1970s. I stapled cardboard strips together to rough out the shape of the mountain, then covered the strips with plaster-soaked newspaper and a skim coat of additional plaster for extra rigidity.

To create the rock formations, I tried tinfoil first, but the edges proved too sharp for this situation. I then experimented with wadded newspaper and paper towels. A fairly large workspace was needed, so a 1'-6" x 2'-0" board was set up on a wheeled cart as a work surface. It took several attempts to find the best method to make the strata. It turns out, the solution was half sheets of paper towels lightly soaked in soupy plaster. After wetting down each sheet, the excess plaster was allowed to drip off. The strip was then folded into an accordion-like shape, with each fold about ½" deep. This produced a strip of strata about 11" long and roughly ⅜" thick.



The rock face was built working down the mountain one towel at a time, holding each strip to the hardshell until it adhered. Typically, two sheets were placed at a time, working left to right and then downward. After every four to eight strips were installed, they were lightly brushed or adjusted with a flat-blade screwdriver to improve realism. As each new column was started, extra time was taken to connect the ends of the strips so seams were not visible. The technique worked out well. The final steps included the usual paint washes and the application of Woodland Scenics ground foam and lichen in various colors.

More than two years were spent on the layout, and it has at last taken shape. After COVID subsided, attention returned to finding work, but construction on the model railroad has recently started again. In fact, after ballasting the second yard, it's now time to begin thinking about layout operations. MR

Send us your scenes

Have you modeled a scene based on a prototype photo? Send both the prototype and model photos, along with a brief description of the scene and the modeling techniques shown, to: Prototype to Model, *Model Railroader* magazine, 18650 W. Corporate Dr., Suite 103, Brookfield, WI 53045; or email to Consulting Editor Tony Koester at consulting.editor@firecrown.com.

Steve Limer's model of Utah's Echo Canyon was formed using plaster-soaked paper towels that were then folded into an accordion-like shape and held to the surface of the cliff until the plaster had dried sufficiently to secure them in place. He took advantage of a long break in his work schedule caused by COVID travel restrictions to make progress on his HO scale Union Pacific layout. Two photos by the author



Steve and his college roommate, Jon Gilbert, remain good friends and often find photogenic spots along the Union Pacific like Echo Canyon for their annual railfan outings.



FT A AND B LOCOMOTIVE

HO SCALE

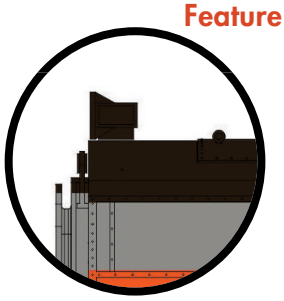
TONS OF ROAD-SPECIFIC DETAILS, INCLUDING:

Western Pacific B-Units Feature Rear Headlight



DRGW's Unique Class Lights Welded On Nose





Western Pacific A-Units Feature Wagon Wheel Antenna and Numberboards



Rapido's Innovative Close Coupling System Couplers or Drawbars Appropriate per Road

Photo-etched Grilles Reveal the Detailed Truss Work!



MoPower UNINTERRUPTED LOCOMOTIVE POWER

ESU LOKSOUND EST. 1999

SANTA FE • ACL • BALTIMORE & OHIO • ROCK ISLAND • DRGW • ERIE • EMD DEMO
LEHIGH VALLEY • NEW YORK CENTRAL • SEABOARD AIR LINE • SOUTHERN • WESTERN PACIFIC

All locomotives feature the MoPower capacitor for uninterrupted DCC power. Suggested minimum radius: 18"

CONTACT YOUR RETAILER OR ORDER DIRECT AT RAPIDOTRAINS.COM

RAPIDO

RAPIDO® TRAINS INC.

Quality. Style. Spirit.™

rapidotrains.com • youtube.com/RapidoTrains • facebook.com/RapidoTrains

By Larry Puckett

Saying goodbye to an old friend

I have been asked many times over the last year and a half why I tore down my HO scale Piedmont Southern railroad that I'd been building for about 10 years. Many of us eventually face challenges that can be transformational, and my challenge came in 2023 when I was diagnosed with cancer and underwent a series of procedures followed by several weeks of radiation therapy.

Facing the reality of your own potential mortality can make you re-evaluate your priorities. In my case, that included the possibility of leaving a major headache in the form of a large model railroad and hundreds of locomotives and pieces of rolling stock for my wife and children to dispose of.

There were other factors as well. Most of the regular round-robin operating group that I take part in were also facing health issues, so there was the future prospect of not having a large enough crew to operate the railroad. After several months of deliberation, I decided it was time to say goodbye to the old Piedmont Southern, and in the summer of 2024, out it came.

I did manage to save some of the structures and unballasted turnouts, but most just ended up at the landfill. I tried to save the signature Rockfish River scene that was published in the October 2014 MR, but it didn't survive the demolition. I kept about a hundred locomotives and a couple hundred pieces of rolling stock, but I sold most of the roster to a local dealer.

There is an old saying that "when one door closes, another one opens," and for me that meant moving forward with a downsized Piedmont Southern, one that could be operated by a crew of just one or two. To keep everything in perspective, I came up with a list of priorities for the new design.

First, unlike the old layout, it had to be built so it could be easily disassembled and moved, including fitting through the basement door to the garage. To accomplish this, I went with 2 x 4-foot sections connected end-to-end with carriage bolts and alignment dowels to guarantee a perfect fit.

Second, it had to be mobile, so I installed casters on the legs. That way, should I ever move, or if the need to dispose of it arises, the individual sections can be easily wheeled out to a waiting truck or Dumpster.

To make things interesting, it had to have a couple of areas with enough industries to keep an operator busy with local switching. And for those times when you just want to watch trains run, it had to have the potential for continuous running. This meant adding a reverse loop at each end of the layout.

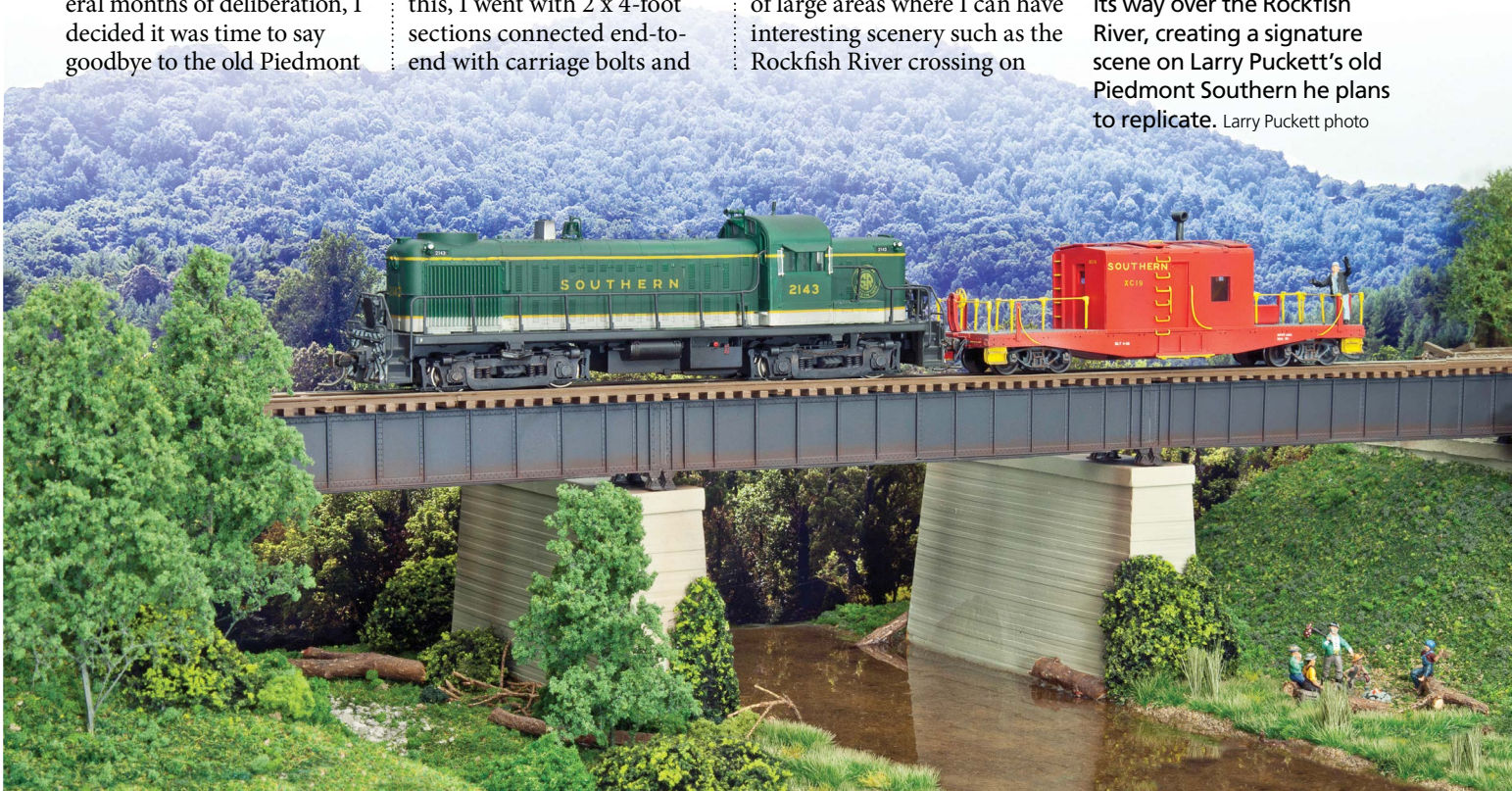
I also needed a place to store complete trains between operating or running sessions, which meant a couple of staging yards. To avoid building a helix and hanging the staging yards under the layout, I decided to add a narrow shelf behind the backdrop with three to four tracks accessed off the reverse loops.

Finally, I wanted a couple of large areas where I can have interesting scenery such as the Rockfish River crossing on my old Piedmont Southern. The reverse loops with their large sweeping curves and a corner layout section will serve that purpose.

So a little over a year later, I now have six sections comprising a 12 x 14.5-foot L-shaped layout with two 8-foot-long switching areas. The reverse loops are my next projects, followed by scenery work.

Can I finish the new Piedmont Southern in just two years? As long as my health holds, I should be able to get the trains running through basic scenery and leave the final details for later. The important thing is to enjoy the process and keep in mind that model railroading should be fun, but not take over your life.

You can watch the progress of building the new layout in videos on my YouTube channel, "Model Railroading with the DCC Guy." MR



Southern Ry. No. 2143 picks its way over the Rockfish River, creating a signature scene on Larry Puckett's old Piedmont Southern he plans to replicate. Larry Puckett photo


PACIFIC FRUIT EXPRESS
P.F.E.
20072
VENTILATED REFRIGERATOR
TIFFANY
D.SP&PRR
REFRIGERATOR
D&RGW
C&S
18
111
Burlington Route
where West
ERIE



The whistle blasts as K-27 Mikado No. 479 approaches the Dolores Station crossing on Al Sohl's On30 Western Bay RR. This double-deck model railroad depicts the Denver & Rio Grande Western on the first deck and the Rio Grande Southern on the second deck. The structures in the background are HO scale.
Eric Menger photo



Western Pacific S1 No. 504 picks up a Virginia Gentlemen boxcar (No. 669) at the brewery on Gary Wilson's HO scale WP layout. The end-cab switcher is a Life-Like Proto 2000 model. The Virginia Gentlemen boxcar is an Athearn kit decorated by Bev-Bel. The brewery is a Campbell kit. The structure to the right of the brewery is a model of the famous Keddie roundhouse, which is mostly custom built. Gary Wilson photo



Hauling a light consist, Canadian National GP9 No. 4413 emerges from under a farm bridge on Jim Martin's S scale Dover Branch layout. No. 4413 is a custom painted and detailed American Models product that has been converted to battery operation using BlueRail components. Rural farm bridges like this used to be common at one time. The model shown here was scratchbuilt by Jim's friend Oliver Clubine. Jim, a member of the National Association of S Gaugers (nasg.org), took the photo.

Send us your photos

Trackside Photos is a showcase for the work of *Model Railroader* readers. Send your photos (digital images 5 megapixels or larger) on a flash drive to: *Model Railroader*, Trackside Photos, 18650 W. Corporate Dr., Suite 103, Brookfield, WI 53045; or email them to us at editor@modelrailroader.com.

A pair of Conrail 86-foot 8-door auto-parts cars sit on the spur at the parts plant located along the GTW line of Jim Sloan's freelanced HO scale layout. The near boxcar, CR 238012, is a Class One Model Works product, and the more distant car, CR 244129, is by Tangent Scale Models. Jim weathered the models with airbrushed acrylic paints and tube artist's acrylics based on prototype photos. The "parts plant" background is made up of four Walthers Armstrong Electric Motors structures kitbashed together. The fencing uses posts from the Walthers fencing kit, old B-string from Jim's guitar, and tulle, all of which was then painted. Jim Sloan photo

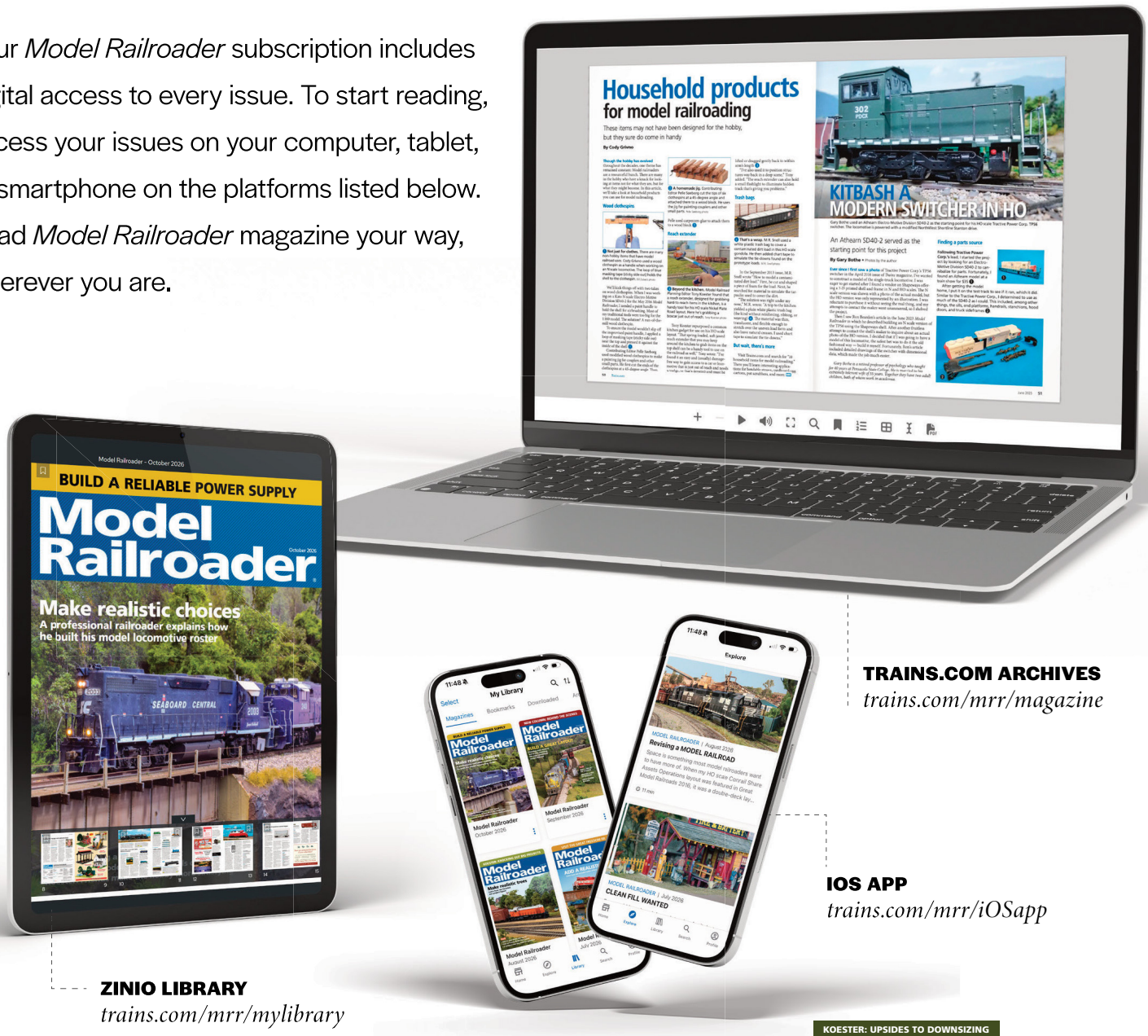


Model Railroader

DIGITAL ACCESS

READ EVERY ISSUE. FROM ANYWHERE.

Your *Model Railroader* subscription includes digital access to every issue. To start reading, access your issues on your computer, tablet, or smartphone on the platforms listed below. Read *Model Railroader* magazine your way, wherever you are.



TRAINS.COM ARCHIVES
trains.com/mrr/magazine

IOS APP
trains.com/mrr/iOSapp

ZINIO LIBRARY
trains.com/mrr/mylibrary

NOT A SUBSCRIBER YET?
GET *MODEL RAILROADER* WITH DIGITAL ACCESS INCLUDED.

SUBSCRIBE TODAY
trains.com/mrr/subscribe



BUILD YOUR PATRIOTIC FLEET

SCALE TRAINS | AMERICA 250

250th collection

For 250 years, railroads have shaped our nation's story. To honor America's semiquincentennial, ScaleTrains™ is proud to introduce our 250th collection – one of the most patriotic locomotive collections in model railroading history.

Spanning nearly 150 new paint schemes across both HO and N Scale, this lineup features everything from the Class Is to regional shortlines, including all-new locomotive models and officially licensed America250® decoration. Available for preorder at ScaleTrains.com, these commemorative models offer a once-in-a-generation opportunity to honor America's birthday and railroading heritage on your model railroad.

Scan the QR code below or visit ScaleTrains.com to explore the entire 250th collection.

For the ultimate collector, our Limited Edition Collectible Boxed Sets feature museum-quality packaging, every announced road number for that railroad, and a serialized certificate of authenticity. These sets are available for preorder exclusively at ScaleTrains.com. Because production runs are strictly limited, we encourage you to reserve your sets today



The ultimate destination for A250. Discover nearly 150 products crafted for total versatility.

BNSF RAILWAY · CPKC · CN · CSX · NS NORFOLK SOUTHERN · N&W

PREORDER NOW / PAY ON ARRIVAL

ScaleTrains.com™

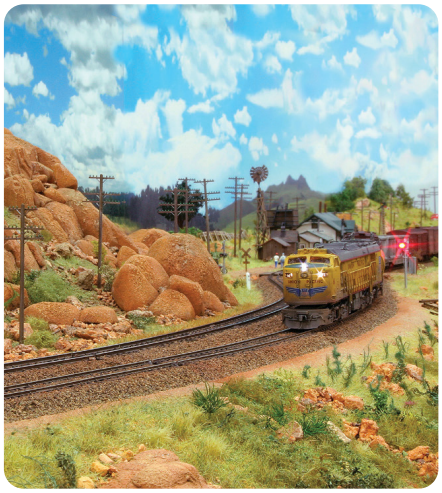
844-9TRAINS 844-987-2467 · International 423-299-3689

©2026 USSC. The America250® word mark and logo are trademarks of the USSC. ©2026 ScaleTrains, ScaleTrains.com and respective logos are trademarks of ScaleTrains.com, Inc. Pricing is subject to change without notice.

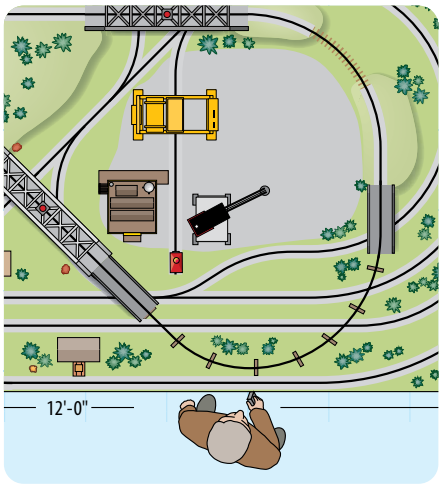
ALL ABOARD!

trains.com UNLIMITED

ONE MEMBERSHIP. ALL ACCESS.







Get unlimited access to every magazine archive, article, and video on Trains.com when you try Trains.com Unlimited free for 30 days. **PLUS** receive a $20 OFF Trains.com Store coupon code with your membership.

JOIN FREE TODAY

TRAINS.COM/UNLIMITED



THE BEST IN MODELING & RAILROADS • ALL IN ONE STOP!

Trains · Model Railroader · Classic Toy Trains · Classic Trains · Garden Railways · trains.com VIDEO

Central & Western
Gateway to the West
WE CAN MEET ALL YOUR HOMASOTE ROADBED NEEDS
PH#: (210)-519-0186
EMAIL: CWHOMAROAD@GMAIL.COM
WWW.CWHOMAROAD.COM

BackdropsOnly.com
20% OFF With Promo Code MR20 At Check Out, Hurry, Limited Time Offer
BackdropsOnly@gmail.com
800-320-5057

Train Installations LLC
MODEL RAILROADS FOR HOME OR BUSINESS
HELP WANTED
See Our New Online Store!
(770) 597-0038 ~ Since 2001~
dave@traininstallations.com
www.traininstallations.com

Conowingo Models
The New Home Of
SUGAR PINE MODELS
Wood craftsman structures and rolling stock
CONOWINGOMODELS.COM

Rail Scale Models
Your Source For:
▪ Craftsman Kits
▪ Laser-Cut Detail Items
▪ Custom Scale Structures
▪ Laser-Cutting Services
Items in All Scales
www.Rail-Scale-Models.com

TheRailroadDesigner.com
Designing Dream Layouts For Over 20 Years
Any Scale / Any Size
TheRailroadDesigner@Gmail.com
Get A FREE Full Size Print Template If You Reference This Ad When Ordering.

GOODDEALSDCC
www.gooddealsdcc.com
HOME OF THE PROGRAMMER TEST TRACK SYSTEMS
All Scales Available
Custom Orders
Clear Acrylic Inspection Cars
847-791-3987
Joe Montilla
31 N Salem Dr
Schaumburg, IL 60194
Joe@GoodDealsDCC.com

Pursuing Excellence
THE TRAINMASTER, LLC
Detailed Craftsman Kits
www.TheTrainMaster.com

EngineHouse Services, LLC
www.enginehouseservices.com
Not the biggest....
Just striving to be the best!

RailroadBackdrops.com
Simply The Best Backdrops
(800) 216-9202
RailroadBackdrops@gmail.com

Rix Products
Pikestuff
Web site: www.rixproducts.com
Send LSASE for new 20 page catalog.
3747 Hogue Rd. Evansville In. 47712
Phone (812)426-1RIX FAX (812)423-3174
Model Railroad Structures & Accessories

Design your layout on your Mac
Empire Express™
Easy to learn. Easy to use. Quick.
Try before you buy.
Visit the Haddon Software web site:
www.haddonsoftware.com

Touch Toggles Brilliant
Lots of new additions to our system
Check the website for new controls
Route Controls
DCC & LCC options
High Rail
Made in the USA
www.berretthillshop.com

TamValleyDepot.com
Since 2008
Frog Juicers automatically reverse DCC polarity for turnouts, crossings, wyes, turntables, loops.
200K Sold!
BlueRail DCC Control any DCC decoder from your phone with battery or track power.
1.72" .57"
Servo Switch Machines Small, powerful and versatile. Easy to install with many control options.

BACKDROPS
HO, O, N Scales
WWW.TRAINJUNKIES.COM
<--------Up to 100 Feet Long------->

AffordableModelRailroads.com
GETTING YOUR DREAMS ON TRACK
Professional Layout Design & Construction
We Complete Unfinished And In Progress Layouts.
Design, Build, Fix And Complete Any Size or Scale!
AffordableModelRailroads@gmail.com
(800) 216-9202

Want more
Model Railroader?
Check out
Trains.com

Say you saw
their ad in
Model Railroader
magazine!

What can Model Railroader magazine do for you?
To advertise, call, Martha Stanczak
414-246-7081

Learn about new product releases, hobby news, new features on our site and more!
Sign up for Model Railroader's FREE Newsletter!
Go to Trains.com/newsletters/

After You've Looked at the Others...
Progressive pmd Model Design
MUSEUM QUALITY - CUSTOM
LAYOUT MODELING SERVICE
WHAT CAN WE BUILD FOR YOU?
WWW.PROGRESSIVEMODELDESIGN.COM
211 RocBaar Drive, Romeoville, IL 60446
(815) 886-9010 FAX: (815) 886-9076
ULTIMATE MODEL MAGIC™

HO and N Gauge
Loads, Cars and Materials
(541) 784-5771
Siskiyou Line
Professional Grade Railroad Materials
New Locomotives • Carry Cases
Wide Variety of Loads for Cars & Center Beams
and much more
SiskiyouLine.com

The modeler's resource for unique and hard to find products.

Classified Advertising

Schedule of Events Rate: $45 per issue (55 word maximum). Ads will contain the following information about the event: state, city, sponsoring organization and name of event, meet, auction or show, dates, location, times, admission fee, name and/or telephone number and/or email of person to contact for information. Name, daytime telephone number and street address of the person providing the information is also required but need not be included in the ad. Unless otherwise requested, ads will be published in the issue month that the event occurs in. Please specify issue date(s). **Word Ad Rates;** per issue: 1 insertion — $2.03 per word, 6 insertions — $1.89 per word, 12 insertions — $1.77 per word. $40.00 MINIMUM per ad. To receive the discount you must order and prepay for all ads at one time. Count all initials, single numbers, groups of numbers (i.e. 4-6-0 or K-27), names, address number, street number, street name, city, state, zip, phone numbers each as one word. Example: John A. Jones, 2102 South Post St., Waukesha, WI 53187 would count as 10 words. For MR's private records, please furnish: a telephone number and, when using a P.O. Box in your ad, a street address. *Model Railroader* reserves the right to refuse listing. **All Copy:** Set in standard 6 point type. First several words only set in bold face. Ads should be emailed and categorized to ensure accuracy.

Email your ads to: classads@firecrown.com
Model Railroader — Classifieds
Phone: 414-600-9285.
All ads must be prepaid prior to or by Ad Closing Date and pertain to the subject of model railroading. We accept payments by securely storing your Visa, MasterCard, American Express, or Discover card information

Schedule of Events

AZ, GLENDALE: ARHS Model Train Swap Meet. Glendale Christian Church, 9661 North 59th Ave., Glendale, AZ 85302. Saturday, November 14, 2026, 9:00am-1:00pm. Everything Trains – Food – Fun. Admission $5.00. Tables $25.00 - to sign up, send check or money order to: ARHS, PO Box 5816, Glendale, AZ 85312-5816. Contact: Craig Faris, 623-340-3529

CO, LONGMONT: Boulder Model Railroad Club 49th Annual Model Railroad EXPO. December 11-13, 2026. 10am-5pm. Boulder County Fairgrounds Exposition Hall, 9595 Nelson Road, Longmont, CO 80501. Adults $8, Seniors $5, Kids 12 and under FREE. Multiple scales, layouts, and vendors. Additional information, visit: bmrconline.org or email: bmrcexpo@gmail.com

CO, LOVELAND: Rocky Mountain Train Show, November 28-29, 2026. The Ranch Events Complex, 5280 Arena Circle, Loveland, CO 80538. Saturday, 9am-5pm, Sunday 9am-3pm. 200+ sales tables, 50+ vendors, operating layouts, model trains of all scales. Admission $10.00, 12 and under free. Free parking. 303-364-0274 www.RockyMountainTrainShow.com Information@RockyMountainTrainShow.com

FL, CRYSTAL RIVER: Regal Railways presents Toy Trains & Hobby Show. Florida National Guard Armory, 8551 W. Venable St., Crystal River, FL 34429. Saturday, December 12, 2026, 9:00am-2:00pm. Admission: $6.00 adults, children under 12 free. Vendors and operating layout. Lunch items available. Contact Joe: 727-244-1341 or visit www.regalrailways.com for more information.

FL, OCALA: "Trains for Christmas" Free train show November 14 & 15, 2026. Saturday 10am-4pm, Sunday 11am-4pm. Experience multiple layouts and participate in great raffles. We are a collection site for Toys for Tots. No vendors. Marion Oaks Community Center, 294 Marion Oaks Lane, Ocala, FL 34473. Information, contact Bill Quast at 352-209-5422 or email wmquast@gmail.com

IN, LA PORTE: La Porte County Train Show and Swap Meet. La Porte County Fairgrounds Community Building, 2581 In-2, La Porte, IN 46350. Sunday, November 22, 2026, 9:30am-2:00pm (Chicago time). Adults $5.00, youths 6-12 $1.00, 5 and under free. Contact: Dave Novak at trains86@myyahoo.com or 219-778-3195.

MA, MARLBOROUGH: Hub Division NER/NMRA. Royal Plaza Trade Center, 181 Boston Post Road West (Rte. 20 West), Marlborough, MA. Saturday December 5, 2026; 10am-4pm, and Sunday December 6, 2026; 10am-4pm. Admission: $15.00; Children under 12 and Scouts in Uniform FREE. Admission is good both days. Information: Ray, 781-910-9581; e-mail: TE.info@hubdiv.org; website: www.hubdiv.org

MI, BELLEVILLE: Rails on Wheels & Division 6-NMRA's North Central Region, presents the Southeast Michigan Model Railroad Show and Sale. November 22, 2026, 10am-3pm. Early Bird 9am. New Location: Wayne County Community College's Ted Scott Campus; 9555 Haggerty Rd., Zip: 48111. Admission: $6, Early Bird $10. Operating Layouts, LEGO layout, Vendors, Clinics. Contact: John Young, 517-449-9063, cdjhyoung@yahoo.com

NC, ASHEVILLE: Asheville Train Show. Western North Carolina Agricultural Center. February 26-27, 2027. Friday noon-6:00pm and Saturday 9:00am-4:00pm. Admission $6.00, under 10 free. All scales, all gauges, collectibles, artifacts, operating layouts, hundreds of vendor tables. More: www.Asheville-Trainshow.com

NC, RALEIGH: Neuse River Valley Model RR Club 42nd ANNUAL FALL TRAIN SHOW; DATES: November 7-8, Sat 9-5; Sun 10-4. Graham Building at NC State Fairgrounds. 500+ vendor tables, 16 operating layouts. Display your models at our Craftsman's Showcase. Admission: $10 covers both days, children 12 and under free with adult. Visit www.nrvclub.net

NJ, WAYNE: ECTP and Collectibles LLC presents The Wayne Train Show. P.A.L. Hall, 1 Pal Drive, Wayne, NJ 07470. Sunday, November 22, 2026, 9:00am-2:00pm. Admission: $7.00; under 12 free with adult. John LaLima 732-845-5966. Go to www.eastcoasttrainparts.com and click on The Wayne Show.

OH, MASSILLON: CJ Trains 41st Winter Train and Toy Show. Massillon Knights of Columbus Hall, 988 Cherry Road NW, 44647. Sunday, December 13, 2026, 10:00am-3:00pm. Admission: $5.00, 12 and under FREE. $25/dealer table, 152 - 8' dealer tables. Jon Ulbright, PO Box 446, Wooster, OH 44691, 330-262-7488, cathijon@sssnet.com www.cjtrains.com

OK, GREATER TULSA AREA Holiday Train Show. December 5, 2026. Saturday 9am-3pm. Admission: $10/adult, 12 and under free w/paid adult. Rhema Ninowski Recreation Center, 1367 East 71st South, Broken Arrow, OK 74012. Operating Layouts, Door Prizes, Concessions. Kids train set giveaway Saturday between noon and 1pm. Over 100 vendor tables. Presented by Heartland Toy Train Association. www.HeartlandToyTrains.org

TN, LEBANON: TCA Dixie Division, Music City Chapter, 32nd Annual Christmas Toy Train Show. Saturday, December 12, 2026. 9am-3pm CST. Wilson County Fairgrounds, "Made in Tennessee" Building, 945 East Baddour Parkway, Lebanon, TN 37087. Admission: Adults $8 (cash only), Children under 13 FREE! Free parking! Sponsored by the Music City Chapter TCA. For information: 615-417-3094 or www.dixiedivisiontca.com

TX, HOUSTON: Houston Area Model Train Show, November 14-15, 2026. Saturday 10am-5pm, Sunday 10am-4pm. Adults $8, 17 and under free. All scales, operating layouts, club/museum displays, table sales and more. Pearland Knights of Columbus Hall, 2320 Hatfield Rd., Pearland TX 77581. More information at http://houstontrak.org or email info@houstontrak.org. Sponsored by Houston Area T-TRAK Association, Inc.

VA, FREDERICKSBURG: Rappahannock Model Railroaders 29th Annual Christmas Model Train Show, December 12-13, 2026. Operating G, O, S, HO, N, Z and LEGO train layouts. Vendors, Santa, train set raffle and kids area. Saturday 9am-5pm. Sunday 10am-4pm. Adults $10. Youth 13-17 $5. Under 13 free. Eagles Lodge, 21 Cool Springs Road, Fredericksburg, VA 22405. Info: www.rmrailroaders.com

All listed events were confirmed as active at the time of press. Please contact event sponsor for current status of the event.

Classifieds

Wanted - HO Scale

$1,000,000 CASH AVAILABLE- For your collection! Brass, Plastic, Memorabilia, we buy it all. Call us 352-292-4116 or mail your list to: BRASSTRAINS.COM, 10515 SE 115th Ave., Ocala, FL 34472. E-mail: collections@brasstrains.com

ALL ABOARD! TURN YOUR COLLECTION INTO CASH, EASY! Save yourself the hassle and get back your precious time by selling your collection to Trainz. No collection too large. Got train parts? We want them. We even purchase store inventories! Visit Sellmytrains.com to get started or call 866-285-5840 today. 4195 Industry Way, Flowery Branch, GA 30542

BRASS HO SCALE PASSENGER CARS imported by the Coach Yard and the Division Point. Specifically, Pennsylvania Railroad 1935-1938 Broadway Limited 8-car set, 3-car add-on set and individual cars in Tuscan Red and Fleet of Modernism imported by the Coach Yard in 2012. Also, Norfolk and Western heavyweight passenger cars imported by the Division Point in 2011. For models with original boxes, foam and labels in good to excellent condition, I will pay $1,000 per individual car; $3,000 for a 3-car set; and $8,000 for an 8-car set. Please contact Bill King at wckiii@verizon.net or call 703-217-3751.

CA$H PAID FOR HO AND N SCALE TRAINS. No collection is too big or too small. 414-377-1255

Wanted - Miscellaneous

ALL SLOT CARS WANTED. Any kind, any condition. Top dollar paid. Will pay shipping nationwide. PAUL at 248-760-6960. E-mail: slotcarguy@slotcarguy.com

LOOKING TO ACQUIRE N and/or HO scale train collections. No collection too big or too small. Please call or text Tim @ 817-991-5420 or email karrstrains@aol.com. Located in the Dallas-Fort Worth area.

WANTED: BUYING PRR LW PULLMAN CAR Cast-iron door nameplates, 1938-1950. J.H. STEVENSON, Olmsted Twp, OH 910-724-4453 or 440-333-1092 jhstevenson8445@gmail.com

Custom Painting & Building

CUSTOM BUILDING & PAINTING, kit building, kit-bashing & scratchbuilding. Locomotives, rolling stock, structures & more. 12 Penny Lane, Newark, DE 19702, 302-229-6010, www.tmbcustommodels.com

CLOSING DATES

February 2027 closes November 18

Need more *Model Railroader?*

Check out **Model Railroader Channel** on YouTube!

Model Railroader Channel

www.youtube.com

LEADING MODEL RETAILERS

Retail Directory spaces are sold on a year's basis at $654 per year (payable in advance) or at $60 per month (for one year minimum); also for six months at $353 (payable in advance). Ads will be set in standard listing typography. All insertions must be consecutive. No mention of mail order business permitted.
CLOSING DATES are listed in the "Classifieds" section. For more information email: classads@firecrown.com.

CALIFORNIA • Atascadero
All scales G to Z. Special orders welcome. Midway LA & SF. US 101-US 41, easy access. Open Tue - Sat: 10-5, Sun - Mon: By Appt. E-mail Anita at: anita@cctrains.com Web site: www.centralcoasttrains.com
CENTRAL COAST TRAINS
7600 El Camino Real # 3 805-466-1391

CALIFORNIA • Burbank
All scales G through N, collectibles old & new. Authorized LGB, Lionel, MTH & Märklin dealer. One of the most complete train stores in So. Calif. UPS worldwide shipper. Visit our website at www.trainshack.com
THE TRAIN SHACK
1030 N. Hollywood Way 800-572-9929

CALIFORNIA • San Diego (La Mesa)
Exclusively trains. Craft kits, detail parts, scratch supplies, books. Ride the trolley to Reed's. Open Mon through Sat 10-6; Sun 12-4 reeds@abac.com www.reeds-hobbies.com
REED'S HOBBY SHOP
8039 La Mesa Blvd 619-464-1672

CALIFORNIA • Ventura
Wide selection of domestic & import plastic aircraft, armor, ships, cars, Gundam & rare kits. HO, N, Z, O, G scale trains. Track, structures, scenery & supplies. Also carry Estes rockets. Open 7 days. www.venturahobbies.com
VENTURA HOBBIES
2950 Johnson Dr., #128 805-658-8138

CALIFORNIA • Westminster (Orange Co.)
World Famous Model/Toy Trains Only 7,000 sq. ft. Super Center www.arniestrains.com
ARNIE'S MODEL TRAINS
6452 Industry Way 714-893-1015

CALIFORNIA • Yuba City
A full service model train store. Large inventory, HO, N, O & O27 Tinplate. Books, videos, collector & gift items. Repair service. We buy old toy trains. www.westerndepot.com
THE WESTERN DEPOT
1650 Sierra Ave. #203 530-673-6776

CONNECTICUT • Winsted
A hobby shop for modelers by modelers. From hard to find to latest & greatest. Large store of quality products @ fair prices. Friendly service. www.whitingmills.com salesrrhobbysupply@gmail.com
RR MODEL & HOBBY SUPPLY
100 Whiting Street 860-379-3383

FLORIDA • Melbourne
The Space Coast's Model Train Shop. Z thru G scales, N scale our specialty! Digitrax, Kato, Lionel & Walthers Dealer. Atlas, IM, BWL, Piko, LGB & Rokuhan. Mon-Sat 10am-5pm Email: trftrains@cfl.rr.com
TRF TRAINS & MNT HOBBIES
2715 N. Harbor City Blvd., #10/11321-241-4997

FLORIDA • Miami
Still here after 35 years. N, HO, O, G scales. Limited opening times. Please email for times and days open. Email us at: rtrtrains@aol.com Visit: readytorolltrains.com
READY TO ROLL
831 NW 143rd Street 305-688-8868

FLORIDA • Ocala
HO, N trains & accessories Visa, MC, AX, Discover Open Tues - Fri 9-5, Sat 9-4 www.robshobbyworld.com
ROB'S HOBBY WORLD
8585 SW Hwy. 200 352-854-2799

FLORIDA • Pensacola
Pensacola's Premier Model Train Store. All scales available. Repair service on N-G Scales. Mon.-Sat. 10am-5pm except Tues. 2-5pm www.TuckersTrainSupply.com
TUCKER'S TRAIN SUPPLY
1435 Harold Avenue 850-723-5390

FLORIDA • Port Orange (Daytona Beach)
Your Southern Connection for Quality Products! Featuring O, HO, N, Woodland Scenics. MTH MegaStation & National Service Center. Breyer Horses. Mon - Fri 9:30-5; Sat 9:30-4. www.roundhousesouth.com
ROUNDHOUSE SOUTH
4611 S. Ridgewood Ave. 386-304-7003

FLORIDA • Tampa Bay - Pinellas Park
3000 sq. ft. Showroom. Lionel & MTH Dealer NEW, USED, BUY/SELL * All Gauges N thru G Over 9,000 Parts. Repair Services. Trains, Track, Sets, Scenic Supplies. Mon 1-5, Tue-Sat 10-6 www.zitniktrains.com
ZITNIK TRAINS
5193 73rd Ave. N. 727-201-9668

ILLINOIS • Des Plaines
N, HO, S, O, G Std. & Narrow gauge too. Lots of scratchbuilding supplies and other neat stuff. Brass, books & DVDs. Close to O'Hare. Open seven days a week! Web Store: www.desplaineshobbies.com
DES PLAINES HOBBIES
1524 Lee St. (Mannheim Rd.) 847-297-2118

ILLINOIS • Geneseo
Trains, Scale Models & Hobby Supplies. Specializing in Midwest Roads. Scout says wide selection to scratch your Hobby Itch. Visit our website at GRHobbies.com or call for directions & hours.
GREEN RIVER HOBBIES
119 W. Exchange St. 309-944-2620

ILLINOIS • Springfield
HO / G / N. Special orders / discount prices. Display layouts / clinics / assistance. Call for hours.
CASTLE TRAINS & TREASURES
4782 Old Jacksonville Rd. 217-793-0407

KANSAS • Overland Park (KC Area)
O, S, HO, N, Z & G Scale Lionel, MTH, A/F, Märklin, LGB & more! New, Used & Vintage. Extensive scenery line. Repair, custom work & layouts. www.fredstrainshop.com
FRED'S TRAIN SHOP
10400 W. 103rd St., Ste. 30 913-383-3500

KENTUCKY • Louisville
We offer 13 rooms filled exclusively with items for modeling scales N - G. Repairs and installations welcome. We buy and sell. Mon-Fri 11-7 & Sat 10-5:30. WEBSTORE AT: WWW.ROUNDHOUSEKY.COM
ROUNDHOUSE ELECTRIC TRAINS INC
4870 Brownsboro Rd 502-895-2466

MASSACHUSETTS • Ashburnham
Specializing in New England road names, HO/N Scale. Micro-Trains, Walthers, Horizon. Special orders discounted. Thurs-Fri-Sat 10am-6pm service@halfpricehobby.com
SHEPAUG RAILROAD COMPANY
23 Westminster St. 978-537-2277

MINNESOTA • Burnsville
Premier model train store committed to being a one-stop shop for model train enthusiasts. johnsmodeltrains@gmail.com Store Hours: Th & Fri 3-7, Sa 11-7, Su 1-5 www.bigjohnsmodeltrains.com
BIG JOHN'S MODEL TRAINS
1178 Burnsville Ctr, Ste 1032 508-918-8188

NEBRASKA • Deshler
One of the largest HO/N scale inventories. Come check us out! All major brands plus books, videos, tools & scenery. Mon-Fri 9-5:30, Sat 9-3. www.springcreekmodeltrains.com
SPRING CREEK MODEL TRAINS, LLC
304 E. Bryson Ave. 402-365-7628

NEBRASKA • Omaha
Trains & supplies for all scales Z-G. We are DCC ready & installation service available. Service work, repairs, technical support. Family owned since 1936. www.houseoftrains.com
HOUSE OF TRAINS
8106 Maple St. 402-934-7245

NEVADA • Las Vegas
From Z Scale to G Scale We Got You Covered Open Mon-Sat 11 AM to 5 PM Buy Online at www.westsidetrains.com Nevadas ONLY Remaining Train Store
WESTSIDE TRAINS
2960 S. Durango #117 702-254-9475

NEW JERSEY • Bellmawr
A complete Train Store. Repairs & Decoders Installed, N, HO, S, O. DCC Specialists Authorized Dealer. Digitrax ESU-Loksound, NCE Soundtraxx, TCS. www.yankeedabbler.com
YANKEEDABBLER.COM
101 W Kings Hwy, 08031 856-312-8084

NEW JERSEY • Mountain Lakes
Direct dealer for LIONEL and MTH. The largest train store in Northern NJ since 1974! 4 showrooms plus Operating Layout. WE BUY OLD TRAINS - Lionel Service Station #556 www.TRAIN-STATION.COM
THE TRAIN STATION
12 Romaine Road 973-263-1979

NEW JERSEY • Piscataway
Serving hobbyists since 1933. Large selection of HO, N, & O scale Railroad books - complete repair service www.themodelrailroadshop.com
THE MODEL RAILROAD SHOP, INC.
290 Vail Ave. 732-968-5696

NEW YORK • Wellsville
HO, N & O Accurail, Bowser, Atlas, Walthers, Williams & Kadee. Scenery & modeling supplies. Plastructs, magazines & building kits. Old local lines like WAG, Erie & EL. Call for hours.
EAST DYKE DEPOT
332 E. Dyke St. (Rt. 417E) 585-593-0005

OREGON • Portland
HO, N, Z, Lionel, DCC, brass Reservation discounts, new, used, Consignments, 16 minutes from Airport www.hobbysmith.com
THE HOBBY SMITH
1809 NE Cesar Chavez Blvd. 503-284-1912

OREGON • Portland
Your complete model railroad store. Gauges Z through G. Mon-Sat 10am-4pm, Closed Sunday www.wsor.com
WHISTLE STOP TRAINS
11724 SE Division St. 503-761-1822

PENNSYLVANIA • Blue Ridge Summit
The Exclusive model railroad store. From N to G, we stock it all. Only minutes from Frederick, MD and Gettysburg, PA. www.mainlinehobby.com
MAINLINE HOBBY SUPPLY
15066 Buchanan Trail E. 717-794-2860

PENNSYLVANIA • Broomall
Lionel, American Flyer, LGB, Atlas & MTH HO, N, ON30, Standard, O & S gauges bought, sold & traded. Auth. service station. www.nstrains.com
NICHOLAS SMITH TRAINS
2343 West Chester Pike 610-353-8585

PENNSYLVANIA • Jeannette
Trains exclusively. Lionel, MTH, HO & N. Supplies and accessories at discount prices. Mon-Wed-Thurs 10-5, Fri 10-6:30, Sat 10-4. Closed Tue & Sun. Expanded hours Nov & Dec. www.needztrains.com
NIEDZALKOSKI'S TRAIN SHOP
214 South 4th Street 724-523-8035

PENNSYLVANIA • Strasburg
From trains to diecast to scenery, everything for the layout builder. Open 7 days a week. N, HO, O, Lionel, LGB. Buy, sell, trade used trains. Located adjacent to the Choo Choo Barn. www.etrainshop.com
STRASBURG TRAIN SHOP
226 Gap Road 717-687-0464

SOUTH CAROLINA • West Columbia
All scales, all major brands of model railroad equipment. We buy & sell used Lionel trains. Open daily 10-6. Closed Sun.
NEW BROOKLAND RR & HOBBY SHOP
405 State Street 803-791-3958

TEXAS • Athens
Specializing in HO, HOn3 • Digitrax Dealer Soundtraxx • InterMountain • Kadee Micro Engineering • Rapido • Atlas • Walthers ---- LET US SELL YOUR HOn3 ---- jack@harrishobbies.com www.harrishobbies.com
HARRIS HOBBIES
9323 County Rd 1127 903-489-2646

TEXAS • Houston
All trains, all scales. Magazines, Books, Videos, Repairs, Brass, Consignments. Discount program, will ship. papabenstrains@gmail.com Mon-Fri 10-6; Sat 10-5; Closed Sun. Open Sunday's Nov-Dec. Major Credit Cards. www.papabens.com
PAPA BEN'S TRAIN PLACE
4007-E Bellaire Blvd. 713-523-5600

TEXAS • San Antonio
Model railroading our specialty. Märklin, G, HO, N, O, Z. Superdetailing parts galore. Books, structures, figures and tools. Tue-Sat 10am-6pm www.dibbleshobbies.com
DIBBLE'S HOBBIES
1029 Donaldson Ave. 210-735-7721

UTAH • Orem
It's cheaper than therapy. Trains all scales, LGB, Broadway Limited, Atlas, Lionel, Micro-Trains, Athearn. Visit us on Facebook: Hobby Stop Utah/@ItscheaperthanTherapy
HOBBY STOP
537 North 1200 West 801-226-7947

VIRGINIA • Ashland (Richmond)
Virtual Railfan hotspot! 60 trains DAILY. Personal service/repairs/layout ideas. We ship. I-95, EXIT 92, ONLY 1.2 Miles West to tracks. Visit our website for store hours: www.trainandtoystore.com
TINY TIM'S TOYS & TRAINS
104 S. Railroad Ave. 804-368-0063

VIRGINIA/MARYLAND • Manassas, VA
Full service storefront & online store. All makes & scales. New/used trains sales, service, repair & upgrades. All scales & Digitrax dealer. Online Sales Visit www.traindepot.biz
TRAIN DEPOT
7249 Gabe Ct. 703-953-3767

VIRGINIA • Staunton
Biggest scale model kit & hobby store in Virginia! We house over 100 model manufacturers and nearly 20,000 model kits. Open Monday-Saturday, closed Sundays. https://frontline-model-kits.square.site/
FRONTLINE MODEL KITS & HOBBIES
18 West Beverley Street 540-569-2903

WASHINGTON • Renton
N & HO model trains & accessories. New, used, and we buy collections. Thurs-Sat 12-6pm, Sun 12-4pm www.pnptrains.com
PNP TRAINS
17056 116th Ave SE 425-496-8844

WISCONSIN • Green Bay
Exclusively trains, specializing in DCC, N, G, & HO. DCC installation and award winning custom painting and building available. www.EngineHouseServices.com
ENGINEHOUSE SERVICES, LLC
2737 N. Packerland Dr. 2H 920-490-4839

WISCONSIN • Milwaukee
Exclusively Model Railroading since 1932. One-stop shopping from Z to G. 800-487-2467 walthers.com
WALTHERS SHOWROOM
5619 W. Florist Avenue 414-461-1050

WISCONSIN • Waukesha (Pewaukee)
Märklin • Lionel • MTH • AF • LGB • Z to G • buildings • scenery • detail parts • books • scratchbuilding supplies • special orders. M-Th 10-6 • Fri 10-7 • Sat 10-5 • Sun 12-5 www.hiawathahobbies.com
JETCO'S HIAWATHA HOBBIES
2026 Silvernail Rd. 262-544-4131

CANADA–BC • Vancouver (Langley)
North American & European Trains. All scales. Atlas, Rapido, Märklin, Walthers, Roco & many more. New/used. We buy estates and collections. Shop online at: ictrainsandhobbies.com
INTERCITY TRAINS AND HOBBIES
19981 96 Ave., Langley 778-705-2131

GERMANY • Kaarst
Europe's best known address for US Railroads. We carry N, HO & G scale for all road names, Atlas to Walthers. Mon - Fri 10-6:30, Sat 10-2 Overseas orders with VS & MC
ALL AMERICAN TRAINS
www.aat-net.de E-mail: info@aat-net.de

Run your Retail Directory ad in the next issue of ***Model Railroader!***

Email: classads@firecrown.com for more information.

Model Railroader

Your source for track plans, model train layouts, expert modeling tips and more! Use the filters to search by topics, scales and category.

Go to **Trains.com/MRR/How-To**

BUILD YOUR MODELING SKILLS!

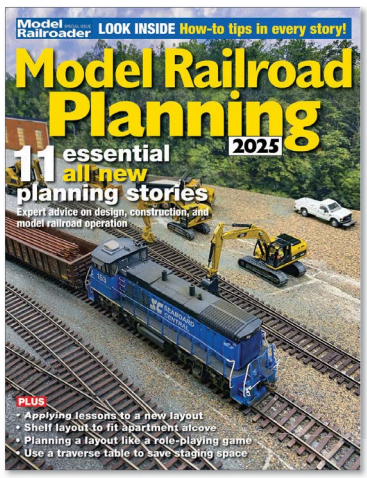


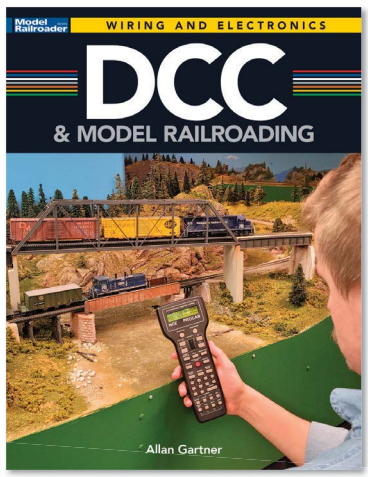
Visit The Trains.com Store today where you'll find high-quality, skill building products curated by the *Model Railroader* magazine team, including:

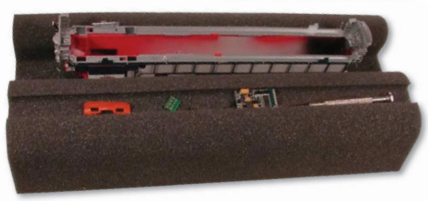
- **Books covering topics such as layout design & planning, modeling & painting, wiring & electronics, track plans, and more.**
- **Magazines providing a deep look into high-interest topics.**
- **DVDs featuring step-by-step techniques, tips, and exclusive content.**
- **The best tools available for building and finishing a layout.**
- **And much more!**

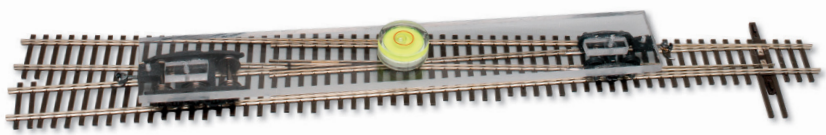












Shop Now at
Shop.Trains.com/ModelRailroads

trains.com STORE

Sales tax where applicable.



Display Ad Index

We believe that our readers are as important as our advertisers. If you do not receive your merchandise or a reply from an advertiser within a reasonable period, please contact us. Provide details about what you ordered and the amount you paid. If no action is obtained after we forward your complaint to the advertiser, we will not accept further advertising from them. *Model Railroader* magazine, 18650 W. Corporate Dr., Ste. 103, Brookfield, WI 53045.

Amherst Railway Soc 21
Atlas Model Railroad Co., Inc. 5
Axian Technology 16
Bachmann Industries, Inc. 76
Broadway Limited Imports 20
Circuitron 9
Custom Model Railroads 23
Digitrax 16
Evergreen Scale Models 16
Great Midwest Train Show 23
Great Train Expo 23
Greenburg Shows 23
HobbyTrax US 21
K & R Electronics 21
Kato USA Inc. 75
Märklin, Inc. 47
Menards 17
Model Train Market 6
Modelers Marketplace 69
Model Rectifier 7
Mr Muffin's Trains 21
Nadine Charlsen 21
N Scale Magazine 9
PECO Products 19
Ron's Books 21
Rapido 60
ScaleTrains 2, 67
Showcase Express 23
Sievers LLC 16
SoundTraxx 23
Spring Creek 23
Subscribe to Model Railroader 66
Texas Trains & Diecast 21
Tiny Tim's 21
Train World 23
Trains.com 68
Trains & Travel 21
Trainz.com 9
Wm. K. Walthers Inc 3
Woodland Scenics 15
Yankee Dabbler 9

The Display Advertiser Index is provided as a service to *Model Railroader* magazine readers. The magazine is not responsible for omissions or for typographical errors in names or page numbers.

Model Railroader MAGAZINE



Next Issue

Meet the Sand Creek!

Editor-at-Large David Popp introduces this year's project railroad, the Sand Creek addition to his Olympia logging layout.

CP Rail in Vermont

The CP Rail Newport and Lyndonville Subdivision fulfills a childhood ambition of Neil Schofield to design and build his own layout

MRP: Modeling central Illinois in the 1950s

Variety is a key attraction, with lots of railroads and many different types of freight.

Plus more:

- Techniques to create files for laser cutting brass car sides for unique passenger cars
- Tips for adding battery power to an O scale locomotive
- Pelle Søeborg shows how he built a cornfield for one of his modules
- Build a flail mower flatcar load

Subscribe today!

www.Trains.com

By Tony Koester

Cures for malaise



The same railroad took on a new life when Mike Confalone "abandoned" the Allagash RR and a new owner, the Androscoggin & Western Maine, took over the physical plant as time shifted ahead a decade. This gave Mike new ways to maintain his interest and skills. Mike Confalone photo

I glibly used to say that if you wisely built your railroad not just as a scenic tour de force but also to support realistic operation, it could entertain you for the rest of your life, even after all of the actual modeling was done. Now I'm not so sure.

As many of my friends bring their model railroads to what an observer would call an advanced state of completion, according to my previous train of thought they should be ready to sit back and enjoy the fruits of their labors through regular operating sessions. But in many, perhaps most cases, that isn't what I see happening.

When I first met Mike Confalone, he was modeling a 10 mph short line in a basement large enough to do justice to a major railroad. We chatted about that, and soon Mike's superb modeling skills led to what became the Allagash Ry. (AGR), a Maine regional somewhat like the Bangor & Aroostook in size and scope. The success of its concept and execution led to an active interchange with the late Jack Ozanich's Atlantic Great Eastern, a proto-freelanced railroad that was almost more realistic in its execution and operations than the prototypes on which it was based.

The AGR provided nearly 16 years of enjoyment. But by December 2024, Mike began to tire of the Allagash brand. Without hesitation, major changes were made. The railroad's physical plant stayed intact, but the timeline moved forward from 1982 to 1993. And there was a new sheriff in town, a secondhand Alco-powered regional called Androscoggin & Western Maine (see the photo above). The backstory behind this rather abrupt change would require a feature article to tell, but it's an indication that leaving well enough alone isn't in the DNA of many model railroaders.

This tendency isn't a recent trend. Decades ago the late Chuck Hitchcock abandoned a large Santa Fe mainline layout to build one that focused on switching a large agricultural complex, then moved into a new home and modeled a Santa Fe branch line.

Doug Tagsold started with a Denver & Rio Grande HO railroad, revamping part of it to include the Denver industrial switching belt, finally adding an On3 railroad in a nearby outbuilding. Then the Tagsolds moved across town, and Doug built an HO Toledo beltline railroad before dismantling it to allow room for more Colorado narrow gauge: the Colorado & Southern in the unusual scale of 1:72. Once completed and operated for a while, it too has given way for a new HO railroad based on the Pennsylvania's Panhandle Line. It's pretty obvious Doug enjoys building model railroads.

Bill Darnaby, well known for his pioneering combination of timetable-and-train-order operations and a multideck model railroad to provide enough of a mainline run ("10 scale miles") to make it interesting, recently proclaimed the Maumee Route finished. He and Mary Ann summer at their lakeside "cottage," but the Cleveland, Indianapolis, Cincinnati & St. Louis RR still operates regularly during the colder months. Yet the model building itch is still there. His lakeside basement is actually a bit larger than the one the Maumee occupies but has a flaw: It's rectangular, not L-shaped. The corner of an L provides a view block between towns, precluding crews from simply looking ahead rather than consulting the timetable and train orders, if any, to be sure they can move. Nonetheless, Bill has been building a fleet of Monon steam power in case they relocate their winter residence to an L-shaped abode in central Indiana to be close to family.

Tom Johnson became a permanent Florida resident after retiring from teaching art in Indiana, and a spare bedroom provided a home for another iteration of a series of Hoosier short lines. The road name changes maintained his interest over the years, but Tom has frequently revised his track plan and structure locations. The changes enhance both the appearance and operation, but they also keep him from losing interest.



THEY SHOULD BE READY TO SIT BACK AND ENJOY THE FRUITS OF THEIR LABORS THROUGH REGULAR OPERATING SESSIONS. BUT... THAT ISN'T WHAT I SEE HAPPENING. – TONY

Me? As I've previously mentioned, I'm building an O fine-scale branch line on my enclosed porch while adding improvements to the NKP in the basement. Then there's my neighbors, Perry and Ted, but those stories will have to wait for another time. MR



Amtrak Phase III is BACK!

BRAND NEW F40PHS, SUPERLINERS & AMFLEETS FROM KATO USA!

The wait is finally over! Amtrak Phase III is BACK in N-Scale! Check out our entire Amtrak rolling stock selection at KATOUSA.COM!

F40PH - Few passenger train locomotives have been as prevalent as EMD's F40PH locomotive in the United States. This bulky silver box on wheels provided Amtrak a reliable diesel locomotive to run long distance routes. You can pair this engine with either Superliner or Amfleet cars in the Phase III paint scheme.

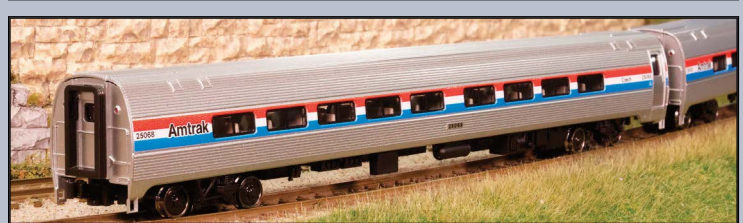
Superliner - The Superliner I fleet was built in 1979 by Pullman Standard and were based on the famous Budd built Hi-Levels operated by the Santa Fe railroad for their "El Capitan" all-coach train.

Amfleet - Amtrak decided to introduce the Amfleet I on the Northeast Corridor in 1975. These cars were designed for short-distance service and were followed up with the introduction of Amfleet II cars in 1981, which were used for long-distance service.

Model Features:

- Brand New Roadnames for 2026
- Free and smooth rolling trucks
- Upgradable with Interior Lighting Kits
- F40PH is DCC and Sound Ready





106-3530	N F40PH (Ditch Light) Superliner 4-Unit	MSRP $180
106-3531	N Superliner I 6-Car Bookcase Set	MSRP $190
176-6108	N F40PH (No Ditch Light) No. 350	MSRP $135
176-6109	N F40PH (No Dtich Light) No. 405	MSRP $135
106-8020	N Amfleet I 4-Car Bookcase Set	MSRP $140
106-6293	N Amfleet II Coach 2-Car Set	MSRP $75
106-6294	N Amfleet II Cafe & Baggage 2-Car Set	MSRP $75

DCC, Sound, and Pre-Installed Lights also available!
*Contact your Favorite Dealer or Check KATOUSA.COM!**

Kato U.S.A., Inc. 100 Remington Road Schaumburg, IL 60173 847-781-9500 www.katousa.com

BACHMANN®

HO SCALE

GRAND CANYON RAILWAY



START YOUR GRAND CANYON ADVENTURE

Since 1901, the Grand Canyon Railway™ has enchanted millions of people from all over the world, and is today responsible for keeping approximately 50,000 cars outside of the Grand Canyon National Park each year while rekindling the excitement of the old west. The Bachmann Grand Canyon Railway™ set brings this iconic train to scale-size, arriving with everything needed to start running straight out of the box. Get ready for an unforgettable adventure into the wild western landscape with the Grand Canyon Railway™ train set!



Item No. 00792

Features include:

- DCC-Ready 2-8-0 steam locomotive with operating headlight
- Factory-installed 21-pin socket for the DCC decoder of your choice
- Two heavyweight passenger cars with body-mounted *E-Z Mate*® Couplers
- 63" x 45" oval of snap-fit *E-Z Track*® with broad 22" radius curves
- Power pack and speed controller
- Illustrated instructions

63" x 45" Oval of Snap-Fit *E-Z Track*®

Scan with your mobile device to learn more





BACHMANN E-Z TRACK SYSTEM
ASSEMBLES IN MINUTES!
Snaps together, stays together on floors, tables, and carpets.
No nails, screws, or special tools needed.

Arriving this Holiday Season

YouTube

BACHMANN INDUSTRIES, INC.
1400 East Erie Avenue; Philadelphia, PA 19124 USA
www.bachmanntrains.com

BACHMANN QUALITY SINCE 1833

The Grand Canyon Railway™ logo is a registered trademark owned by Grand Canyon Railway™, LLC and licensed to Bachmann Industries, Inc.

Bachmann Trains is a registered trademark of Bachmann Industries, Inc.